

**EXPANDED PRE-CERCLIS SITE ASSESSMENT
CHERAW RIVERSIDE DUMP
SCS 123 457 801
CHERAW, SOUTH CAROLINA
CHESTERFIELD COUNTY**

Prepared for:



**U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
61 Forsyth Street
Atlanta, Georgia 30303**

Prepared by:



**South Carolina Department of Health and Environmental Control
Division of Site Assessment and Remediation
Federal & State Site Assessment Section
2600 Bull Street
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September 25, 2017


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Approved by:

**Jeffery Crowley, RPM
Superfund Site Evaluation
Section, USEPA Region IV**

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1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Site Assessment Section, South Carolina Department of Health and Environmental Control (DHEC) has conducted an Expanded Pre-CERCLIS Site Assessment (XPSA) for the Cheraw Riverside Dump site in Chesterfield County, South Carolina. The information gathered from this investigation will be used to decide if the site will be placed on CERCLIS or managed by some other means.

2.0 LOCATION

The site is located at the end of East Church Street in Cheraw (Chesterfield County), South Carolina. See Figures 1 and 2 in Appendix A for site location. The geographic coordinates of the site are at Latitude: 34.698293° N; Longitude: -79.875867° W (Appendix B).

3.0 OWNERSHIP

The site is owned by the Town of Cheraw, SC (Ref 1)

4.0 SITE HISTORY / DESCRIPTION

Cheraw Riverside Dump was an approximately 12-acre open dump that was used during the early to mid-1900s. The site was originally the location of a steamboat landing from 1822 until 1926. A covered toll bridge operated next to the steamboat landing from 1823 until 1938. (Refs 3, 4, 5, 6). From some time after the aforementioned facilities closed until the site's conversion to a park in 1976, the location was used as the town dump (Ref 4). The dump's years of operation are not known, nor are the materials disposed of completely known. The nearby Burlington Industries James Plant began operations in 1961. The former fiberglass fabric manufacturing facility and adjacent neighborhoods are currently undergoing a removal action by the USEPA for Polychlorinated Biphenyls (PCBs) [Refs 7, 8]. PCB contaminated waste material from the Burlington plant could have been disposed of at the dump.

The site is now known as Riverside Park. The town-owned park consists of a picnic shelter, walking trails, greenspace, fishing platform, boat ramp and parking area. Small pieces of refuse were noted at several locations along the green space area. Material consisted of bits of glass, metal, plastic, rubber, porcelain and fabric. Some fabric material was also noted sticking out of the bank along the river. (Refs 1, 2, 6, and 20).

5.0 PATHWAY EVALUATION

5.1 GROUNDWATER MIGRATION PATHWAY

The Town of Cheraw municipal water system provides drinking water to the area surrounding the site, sourced from an up-gradient location on the Great Pee Dee River (Ref. 9). There are no known drinking water wells within $\frac{1}{4}$ -mile of the site, and due to the presence of public water lines in the area it is unlikely that any wells are located within 1 mile (Ref. 1, 10). Based on the limited groundwater use in the area, the groundwater pathway was not evaluated for this report.

5.2 SURFACE WATER MIGRATION PATHWAY

The site is adjacent to the Pee Dee River, which lies within the Pee Dee River sub-basin (Ref. 11). The entire 15-mile Target Distance Limit (TDL) is within the Pee Dee River (Ref. 1). There is no known drinking water use within the surface Water TDL (Ref. 1, 9). The Pee Dee River is utilized for fishing along the entire TDL (Ref. 11). The Pee Dee River has a consumption advisory for certain fish species stemming from PCBs (Ref. 12). The majority of the TDL is bordered by wetlands (Ref 14).

SCDHEC conducted environmental sampling at the site on August 23, 2017 (Ref 16). Three sediment samples were collected along the border with the Pee Dee River. These samples were analyzed by a USEPA lab for semi volatiles (SVOCs), pesticides, PCBs, and metals. The analytical results were compared to two control samples, one from upstream of the site's border with the Pee Dee and one from a creek along the site's northern boundary (Fig 2).

No detections of metals, SVOCs, or pesticides were detected at elevated levels (greater than three times control concentrations) in the sediment samples (Ref 17).

PCB 1248 was detected in sediment samples CR-002 (83 μ g/kg) and CR-003 (64 μ g/kg) slightly above the USEPA Region IV Sediment Screening Value for Hazardous Waste Sites of 59.8 μ g/kg (Refs 17, 18). PCB 1248 was not detected in river control sample CR-001-SD. The tributary north of the dump is believed to have been the location of the Town of Cheraw historical (untreated) sewer discharge. As there were no PCB detections in the dump soil samples taken for this investigation, the sediment PCBs are potentially due to historical releases other than the dump.

5.3 SOIL EXPOSURE / AIR PATHWAYS

On-site soil is classified as Vacluse gravelly loamy sands with Riverview silt loam along the river bank (Ref. 13). No schools or daycares are located within 200 feet of the site (Ref. 1, 15). The population within $\frac{1}{4}$ -mile of the site is estimated to be 348, within $\frac{1}{2}$ -mile, 524 (Ref. 1, 9). The soil exposure pathway is of concern as the present-day site is used as a recreational park for area citizens (Refs 1, 2, 6). The closest resident is approximately 400 feet from the site (Ref 2).

Seven surface soil samples were collected at the site and compared to a control sample collected off site (Ref 16, Fig 2). PCBs were not detected in surface soil samples collected from the site. Pesticides 4, 4'DDE, 4, 4'DDT, and toxaphene were elevated in samples CR-007 & CR-008 but were well below USEPA Region 4 Screening Levels (RSLs) for residential soils (Refs 17, 19).

Several SVOCs were found to be elevated in sample CR-011-SF, with Benzo(a)anthracene (1600 µg mg⁻¹), Benzo(a)pyrene (1600 µg mg⁻¹), Benzo(b)fluoranthene (1500 µg mg⁻¹), and Dibenzo(a,h)anthracene (380 µg mg⁻¹) above their respective RSLs of 1100, 110, 1100, and 380 µg mg⁻¹ (Table 1; Ref 17,19).

Additionally, elevated levels of benzo(a)pyrene were also detected above RSL (110 µg mg⁻¹) in CR-007 (260 µg mg⁻¹) and CR-008 (250 µg mg⁻¹) [Table 1; Ref 17,19].

Several metals were detected at elevated concentrations in soil samples. However, the only detection above RSLs was for lead in sample CR-007-SF of 600 mg kg⁻¹ (RSL 400 mg kg⁻¹) [Table 2 Refs 17, 19].

The sporadic elevated levels of SVOCs are likely associated with burning of the dump area during its operation. The SVOCs have not migrated to the surface water pathway, as none were found at elevated levels in sediments for this investigation.

6.0 SUMMARY AND CONCLUSIONS

Cheraw Riverside Dump was an approximately 12-acre open dump that was used during the early to mid-1900s. The dump's years of operation are not known, nor are the materials disposed of completely known. The site is now a Town of Cheraw operated park known as Riverside Park.

August 2017 sampling for this investigation found some elevated SVOCs and metals (above Residential Soil RSLs) in soils around the site. No PCBs were detected in surface soil samples. PCB 1248 was detected in two sediment samples above its screening value. The tributary north of the dump is believed to have been the location of the Town of Cheraw historical (untreated) sewer discharge. As there were no PCB detections in the dump soil samples taken for this investigation, the sediment PCBs are potentially due to historical releases other than the dump.

Interaction between park visitors and impacted soil is limited to short, intermittent durations as compared to a residential setting. It is recommended that the Cheraw Riverside Dump Site have no further evaluation under CERCLA at this time.

7.0 REFERENCES

1. Cheraw Office of Tourism Cheraw, South Carolina Visitors Guide. 2014
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19. United States Environmental Protection Agency. [Regional Screening Levels for Chemical Contaminants at Superfund Sites](#). Accessed September 2017
20. Trip Report Cheraw Riverside Dump. August 23, 2017

APPENDIX A: FIGURES / TABLES



Figure 1 - General Location (the red pin is the site)

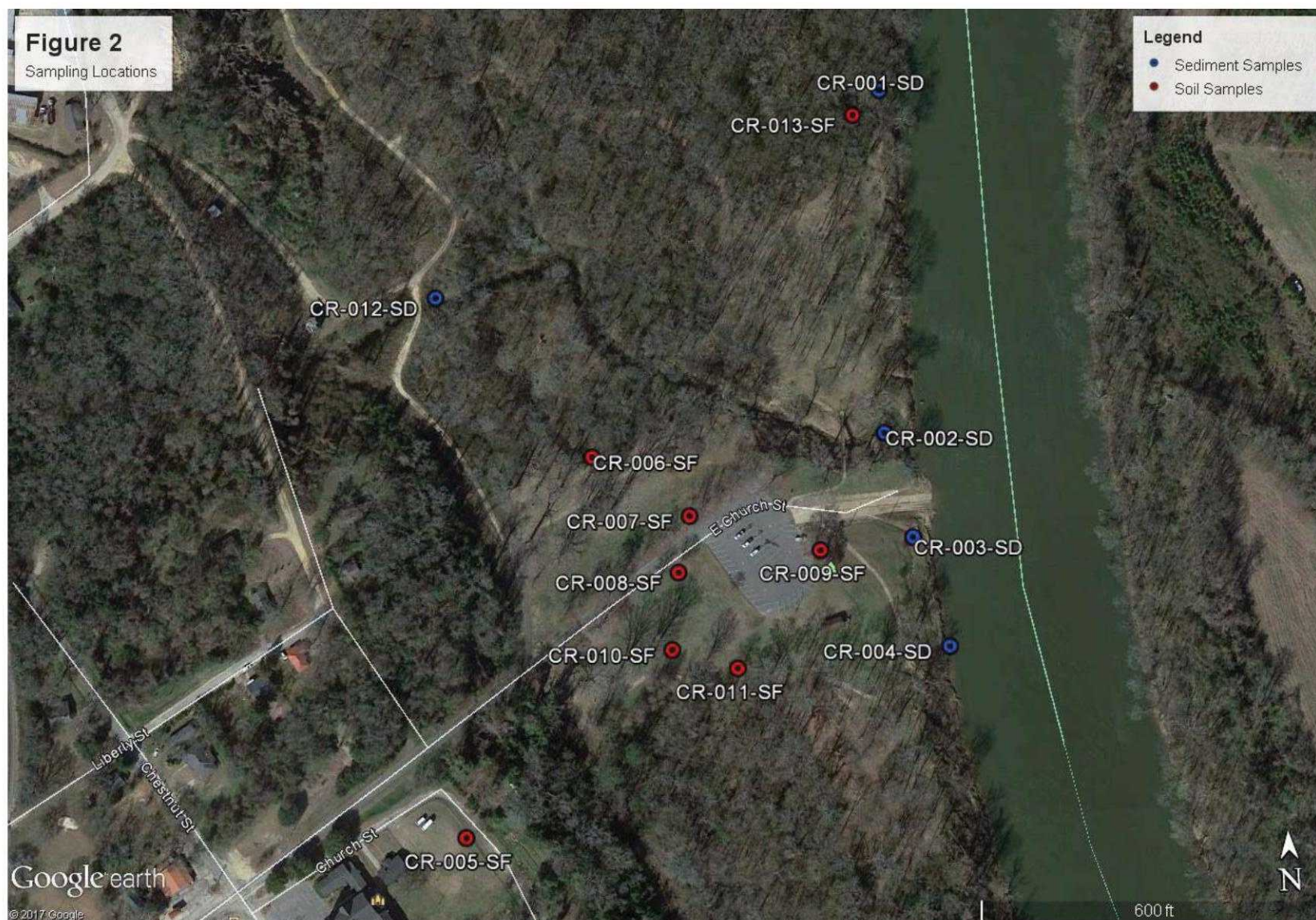


Figure 2 – Sampling Location

Table 1 Selected SVOA results - Cheraw Riverside Dump XPSA - Sampling August 2017

| | CR-005-SF BACKGROUND | CR-006-SF | CR-007-SF | CR-008-SF | CR-009-SF | CR-010-SF | CR-011-SF | CR-013-SF | USEPA Regional Screening Level - Residential |
|-----------------------------|-------------------------|-----------|------------|------------|-----------|-----------|-------------|-----------|---|
| Anthracene | 69 U | 60 J,O | 100 U | 34 J,O | 74 U | 72 U | 470 | 90 U | 18,000,000 |
| Benzo(a)anthracene | 44 J,O | 180 | 220 | 260 | 48 J,O | 72 U | 1600 | 90 U | 1,100 |
| Benzo(a)pyrene | 56 J,O | 160 | 260 | 250 | 43 J,O | 72 U | 1600 | 90 U | 110 |
| Benzo(b)fluoranthene | 130 | 160 | 270 | 310 | 42 J,O | 72 U | 1500 | 90 U | 1,100 |
| Benzo(g,h,i)perylene | 36 J,O | 79 J,O | 160 | 170 | 74 U | 72 U | 910 | 90 U | NA |
| Benzo(k)fluoranthene | 82 | 180 | 290 | 280 | 46 J,O | 72 U | 1500 | 90 U | 11,000 |
| Bis(2-ethylhexyl) phthalate | 350 U | 410 U | 910 | 390 U | 370 U | 360 U | 380 U | 450 U | 39,000 |
| Dibenz(a,h)anthracene | 69 U | 36 J,O | 48 J,O | 62 J,O | 74 U | 72 U | 380 | 90 U | 110 |
| Dibenzofuran | 69 U | 82 U | 100 U | 78 U | 74 U | 72 U | 120 | 90 U | 73,000 |
| Fluoranthene | 77 | 420 | 430 | 610 | 85 | 72 U | 3000 | 42 J,O | 2,400,000 |
| Fluorene | 69 U | 82 U | 100 U | 78 U | 74 U | 72 U | 210 | 90 U | 2,400,000 |
| Indeno (1,2,3-cd) pyrene | 40 J,O | 80 J,O | 150 | 160 | 74 U | 72 U | 930 | 90 U | 1,100 |
| Naphthalene | 69 U | 82 U | 100 U | 78 U | 74 U | 72 U | 170 | 90 U | 3,800 |
| Phenanthrene | 27 J,O | 240 | 150 | 220 | 32 J,O | 72 U | 1800 | 90 U | NA |
| Pyrene | 76 | 310 | 350 | 510 | 68 J,O | 72 U | 2100 | 90 U | 1,800,000 |

Notes:

Units in ug/kg

U - undetected

J - estimated

O - other qualifier - see full analytical data

Blue shaded cells represent detections > 3X background or detections with undetected background

BOLD entries represent detections above Residential Soil RSL

| Table 2. Selected Metal results - Cheraw Riverside Dump XPSA - Sampling August 2017 | | | | | | | | | |
|---|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|--|
| | CR-005-SF | CR-006-SF | CR-007-SF | CR-008-SF | CR-009-SF | CR-010-SF | CR-011-SF | CR-013-SF | USEPA Regional Screening Level - Residential |
| | BACKGROUND | | | | | | | | |
| Cadmium | 0.23 | 0.2 | 1.7 | 0.27 | 0.1 | 0.098 U | 0.46 | 0.16 | 71 |
| Chromium | 4 | 22 | 12 | 5.9 | 18 | 5.8 | 21 | 31 | NA |
| Cobalt | 0.98 U | 13 | 2.3 | 0.99 U | 11 | 0.49 U | 11 | 10 | 23 |
| Copper | 7.2 | 20 | 57 | 17 | 19 | 1.4 | 44 J,O | 20 | 3100 |
| Lead | 54 | 29 | 600 | 220 | 97 | 4.4 | 65 | 26 | 400 |
| Magnesium | 150 | 3000 | 790 | 150 | 2600 | 51 | 1900 | 1700 | NA |
| Manganese | 240 | 1100 | 280 | 62 | 890 | 8.1 | 910 | 940 | NA |
| Mercury | 0.12 U,O | 0.079 U | 0.15 U,O | 0.079 U | 0.12 U,O | 0.079 U | 0.13 U,O | 0.37 J,O | 11 |
| Nickel | 2 U | 11 | 6.5 | 2 | 9.2 | 0.98 U | 12 | 7.2 | 1500 |
| Titanium | 29 | 240 | 79 | 29 | 280 | 24 | 170 J,O | 160 | NA |
| Vanadium | 4.4 | 37 | 12 | 7.9 | 31 | 11 | 36 | 40 | 390 |

Notes:

Units in mg/kg

U - undetected

J - estimated

O - other qualifier - see full analytical data

Blue shaded cells represent detections > 3X background or detections with undetected background concentrations

BOLD entries represent detections above Residential Soil RSL

APPENDIX B: SITE COORDINATE COLLECTION

Site Latitude: 34.698293° N
Site Longitude: -79.875867° W
Feature Description: approximate site center

Collection Date: September, 2017

Note: Site Coordinates collected by photo interpretation in Google Earth (estimated accuracy -20 meters).

APPENDIX C: PSA CHECKLIST

Attachment A: Pre-CERCLA Screening Checklist/Decision Form

This form is used in conjunction with a site map and any additional information required by the EPA Region to document completion of a Pre-CERCLA Screening (PCS). The form includes a decision on whether a site should be added to the Superfund program's active site inventory for further investigation. Select from available dropdown values for fields marked with an asterisk *.

Region: 4 State/Territory: SC Tribe: _____ SCS123457801
 Click here for the [EPA Tribe Entity Mapping spreadsheet](#). EPA ID No. (If Available)

Site Name: Cheraw Riverside Dump
 Other Site Name(s): _____

Site Location: End of East Church Street
7 Cheraw Chesterfield SC 29520 +
 Congressional District (City) (County) (State / Terr) (Zip+4)

If no street address is available: _____
 (Township-Range) (Section)

Checklist Preparer: Jason C Williams 09/25/2017
 (Name / Title) (Date)
SCDHEC (803) 898-0793
 (Organization) (Phone)
2600 Bull St williajc@dhec.sc.gov
 (Street) (Email)
Columbia Richland SC 29201 +
 (City) (County) (State / Terr) (Zip+4)

Site Contact Info/Mailing Address: City of Cheraw, SC
200 Market St Cheraw, SC 29520

CERCLA 105d Petition for Preliminary Assessment? No If Yes, Petition Date (mm/dd/yyyy): _____

RCRA Subtitle C Site Status: Is site in RCRAInfo? No If Yes, RCRAInfo Handler ID #: _____

Ownership Type*: Municipality Additional RCRAInfo ID #(s): _____

Site Type*: Waste Management State ID #(s): _____

Site Sub-Type*: Co-disposal landfill (municipal and industrial) Other ID #(s): _____

Federal Facility? No Federal Facility Owner*: (Make selection)

Formerly Used Defense Site (FUDS)? No Federal Facility Operator*: (Make selection)

Federal Facility Docket? No If Yes, FF Docket Listing Date (mm/dd/yyyy): _____

Federal Facility Docket Reporting Mechanism*: (Make selection)

Native American Interest? No If Yes, list Tribe: _____

Additional Tribe (s): _____

Attachment A: Pre-CERCLA Screening Checklist/Decision Form

Site Description

Use this section to briefly describe site background and conditions if known or (easily) available, such as: operational history; physical setting and land use; site surface description, soils, geology and hydrogeology; source and waste characteristics; hazardous substances/contaminants of concern; historical releases, previous investigations and cleanup activities; previous regulatory actions, including permitting and enforcement actions; institutional controls; and community interest.

Insert text here (if text exceeds size of text box, view all text on page 5):

Cheraw Riverside Dump was an approximately 12-acre open dump that was used during the early to mid-1900s. From some time after the aforementioned facilities closed until the site's conversion to a city park in 1976, the location was used as the town dump. The dump's years of operation are not known, nor are the materials disposed of completely known. The nearby Burlington Industries – James Plant began operations in 1961. The former fiberglass fabric manufacturing facility and adjacent neighborhoods are currently undergoing a removal action by the USEPA for Polychlorinated Biphenyls (PCBs). PCB contaminated waste material from the Burlington plant could have been disposed of at the dump.

The site is now known as Riverside Park. The city owned park consists of a picnic shelter, walking trails, +

Geospatial Information

Latitude: **+** 34.698293

Decimal Degree North (e.g., +38.859156)

Longitude: **-** 79.875867

Decimal Degree West (e.g., -77.036783)

Provide 4 significant digits at a minimum, more if your collection method generates them.

Except for certain territories in the Pacific Ocean, all sites in U.S. states and territories are located within the northern and western hemispheres and will have a positive latitude sign and negative longitude sign. The coordinate signs should be changed as necessary for sites in the southern and/or eastern hemispheres.

Point Description: Select the option below that best represents the site point for future reference and to distinguish it from any nearby sites.

- ☐ Geocoded (address-matched) Site Address
- ☐ Site Entrance (approximate center of curb-cut)
- ☒ Approximate Center of Site
- ☐ Other Distinguishing Site Feature (briefly describe below):

Point Collection Method: Check the method used to collect the coordinates above and enter the date of collection.

- ☒ Online Map Interpolation
- ☐ GPS (handheld, smartphone, other device or technology with accuracy range < 25 meters)
- ☐ GPS Other (accuracy range is ≥ 25 meters or unspecified)
- ☐ Address Matching: Urban
- ☐ Address Matching: Rural
- ☐ Other Method: _____

Collection Date (mm/dd/yyyy): _____

POINT-SELECTION CONSIDERATIONS

- Often the best point is a feature associated with the environmental release or that identifies the site visually.
- Use the curb cut of the entrance to the site if there is a clear primary entrance and it is a good identifier for the overall location.
- The approximate center of the site (a guess at the centroid) is useful for large-area sites or where there are no appropriate distinguishing features.
- Use the geocoded address if that is the only or best option available, but if possible use something more representative for sites larger than 50 acres.

Attachment A: Pre-CERCLA Screening Checklist/Decision Form

| Complete this checklist to help determine if a site should be added to the Superfund Active site inventory. See Section 3.6 of the PCS guidance for additional information. | | | |
|--|-------------------------------------|-------------------------------------|--------------------------|
| | YES | NO | Unknown |
| 1. An initial search for the site in EPA's Superfund active, archive and non-site inventories should be performed prior to starting a PCS. Is this a new site that does not already exist in these site inventories? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is there evidence of an actual release or a potential to release? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Are there possible targets that could be impacted by a release of contamination at the site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Is there documentation indicating that a target has been exposed to a hazardous substance released from the site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Is the release of a naturally occurring substance in its unaltered form, or is it altered solely through naturally occurring processes or phenomena, from a location where it is naturally found? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Is the release from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. If there has been a release into a public or private drinking water supply, is it due to deterioration of the system through ordinary use? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Are the hazardous substances possibly released at the site, or is the release itself, excluded from being addressed under CERCLA? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. Is the site being addressed under RCRA corrective action or by the Nuclear Regulatory Commission? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Is another federal, state, tribe or local government environmental cleanup program other than site assessment actively involved with the site (e.g., state voluntary cleanup program)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Is there sufficient documentation or evidence that demonstrates there is no likelihood of a significant release that could cause adverse environmental or human health impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. Are there other site-specific situations or factors that warrant further CERCLA remedial/integrated assessment or response? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Attachment A: Pre-CERCLA Screening Checklist/Decision Form

Preparer's Recommendation: ☐ Add site to the Superfund active site inventory.

☒ **Do not add** site to the Superfund active site inventory.

Please explain recommendation below:

PCS Summary and Decision Rationale

Use this section to summarize PCS findings and support the decision to add or not add the site to the Superfund active site inventory for further investigation. Information does not need to be specific but, where known, can include key factors such as source and waste characteristics (e.g., drums, contaminated soil); evidence of release or potential release; threatened targets (e.g., drinking water wells); key sampling results (if available); CERCLA eligibility; involvement of other cleanup programs; and other supporting factors.

Insert text here (if text exceeds size of text box, view all text on page 6):

August 2017 sampling for this investigation found some elevated SVOCs and metals (above Residential Soil RSLs) in soils around the site. No PCBs were detected in surface soil samples. PCB 1248 was detected in two sediment samples above its screening value. The tributary north of the dump is believed to have been the location of the Town of Cheraw historical (untreated) sewer discharge. As there were no PCB detections in the dump soil samples taken for this investigation, the sediment PCBs are potentially due to historical releases other than the dump.

Interaction between park visitors and impacted soil is limited to short, intermittent durations as compared to a residential setting. It is recommended that the Cheraw Riverside Dump Site should not have further evaluation under CERCLA at this time.

Site Assessor: Jason C. Williams

Print Name/Signature

09/25/2017

Date

EPA Regional Review and Pre-CERCLA Screening Decision

Add site to the Superfund active site inventory for completion of a:

- ☐ Standard/full preliminary assessment (PA)
- ☐ Abbreviated preliminary assessment (APA)
- ☐ Combined preliminary assessment/site inspection (PA/SI)
- ☐ Integrated removal assessment and preliminary assessment
- ☐ Integrated removal assessment and combined PA/SI
- ☐ Other: _____

Do not add site to the Superfund active site inventory. Site is:

- ☐ Not a valid site or incident
- ☐ Being addressed by EPA's removal program
- ☐ Being addressed by a state cleanup program
- ☐ Being addressed by a tribal cleanup program
- ☐ Being addressed under the Resource Conservation and Recovery Act
- ☐ Being addressed by the Nuclear Regulatory Commission
- ☐ Other: _____

EPA Regional

Reviewer: _____

Print Name/Signature

Date

Site Description*(All text as entered on page 2)*

Cheraw Riverside Dump was an approximately 12-acre open dump that was used during the early to mid-1900s. From some time after the aforementioned facilities closed until the site's conversion to a city park in 1976, the location was used as the town dump. The dump's years of operation are not known, nor are the materials disposed of completely known. The nearby Burlington Industries – James Plant began operations in 1961. The former fiberglass fabric manufacturing facility and adjacent neighborhoods are currently undergoing a removal action by the USEPA for Polychlorinated Biphenyls (PCBs). PCB contaminated waste material from the Burlington plant could have been disposed of at the dump.

The site is now known as Riverside Park. The city owned park consists of a picnic shelter, walking trails, greenspace, fishing platform, boat ramp and parking area. Small pieces of refuse were noted at several locations along the green space area. Material consisted of bits of glass, metal, plastic, rubber, porcelain and fabric. Some fabric material was also noted sticking out of the bank along the river.

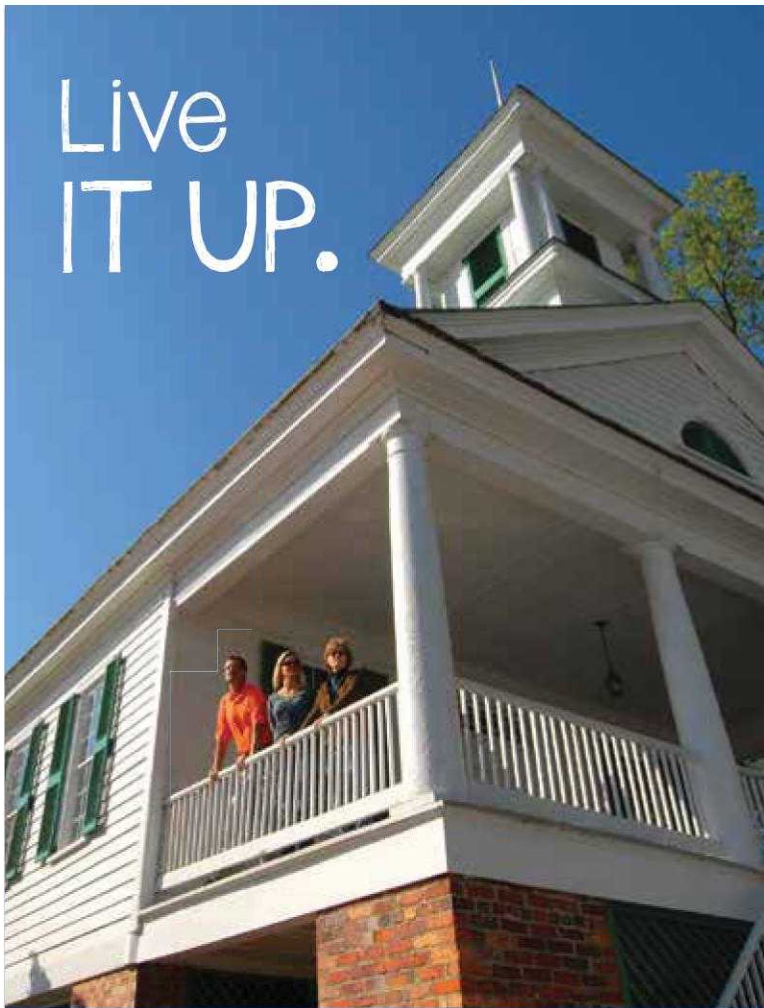
PCS Summary and Decision Rationale*(All text as entered on page 4)*

August 2017 sampling for this investigation found some elevated SVOCs and metals (above Residential Soil RSLs) in soils around the site. No PCBs were detected in surface soil samples. PCB 1248 was detected in two sediment samples above its screening value. The tributary north of the dump is believed to have been the location of the Town of Cheraw historical (untreated) sewer discharge. As there were no PCB detections in the dump soil samples taken for this investigation, the sediment PCBs are potentially due to historical releases other than the dump.

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APPENDIX D: ATTACHED REFERENCES

Live
IT UP.



Visitors Guide

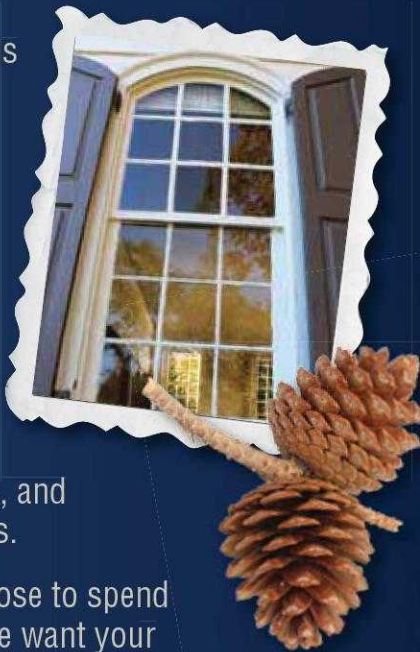
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Welcome

From the moment you arrive in the
“Prettiest Town in Dixie”, get ready to
Live IT UP.

From the gorgeous architecture that predates the signing of the Declaration of Independence to our golf courses surrounded with woodlands and wildlife, Cheraw offers friendly faces, great times, and unique adventures.

However you choose to spend your time here, we want your stay to be enjoyable.



*For personal assistance,
stop by the Cheraw Town
Hall at 200 Market Street
or the Greater Cheraw
Chamber of Commerce,
located at 221 Market
Street.*

*For more information,
go to visitcheraw.com
or call the Office of
Tourism at 888.537.0014
weekdays 8:30-5.*





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300 Years of History 2

Live (our) HISTORY.

History & Heritage Tours & Attractions 4

Live OUTSIDE.

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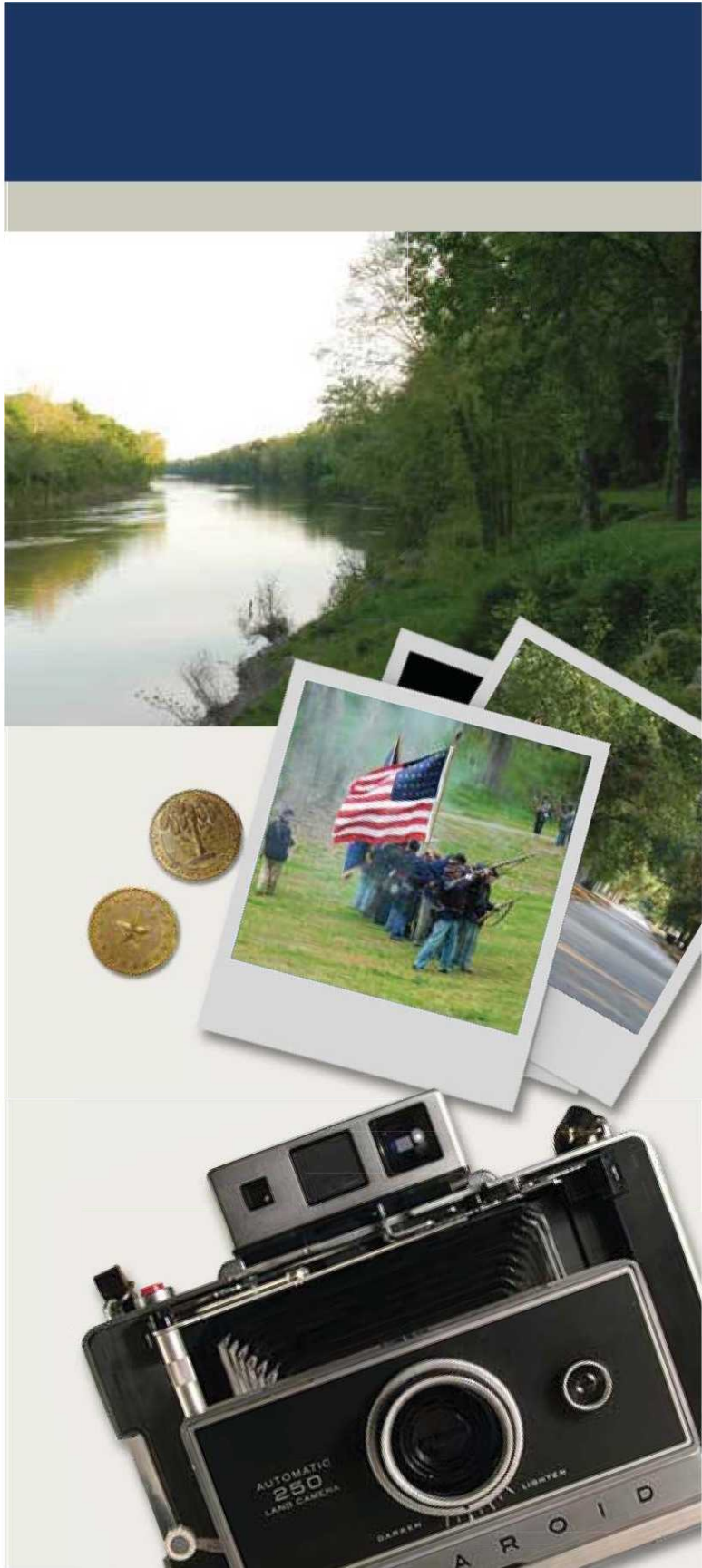


With over 300 years of history, Cheraw was named for the Cheraw Indians. Begun in the early 1700's as a small trading post on the Great Pee Dee River, Joseph and Eli Kershaw were granted part of present day Cheraw in 1768. The brothers formally laid out the present wide streets and town green, which is now the center of the town's 213-acre historic district listed on the National Register of Historic Places. Since Cheraw was at the head of navigable waters on the river, the town became a bustling river port during the 19th century, boasting the largest bank in South Carolina outside of Charleston and the largest cotton market between Georgetown and Wilmington.



Cheraw was in the forefront of the South Carolina secession movement and was also in the path of General William T. Sherman's Union Army. Fortunately,

the town was not destroyed as many towns in Sherman's path, and numerous Civil War sites remain. Tree-lined streets with 18th and 19th century homes make the residential areas an enjoyable place to stroll.



Live (our)



The *Cheraw Town Green* is home to several of Cheraw's most historic properties, including the *Lyceum Museum*, c. 1825, the *Market Hall*, c. 1837, the *Inglis-McIver Law Office*, c. 1830, and the *Town Hall*, c. 1858. A statue of jazz great, *Dizzy Gillespie*, a Cheraw native, keeps watch over this tranquil spot.

Before you begin your exploration of old Cheraw, head to the Cheraw Town Hall, the Lyceum Museum or the Greater Cheraw Chamber of Commerce office for a number of complimentary brochures.

History & Heritage Tours & Attractions

Cheraw African American Heritage History Tour

Downtown Cheraw

Discover the hardships and contributions African Americans made to Cheraw's history. With 45 historic sites highlighted, pick up a copy of the *Cheraw African American Heritage History Guide* and visit the churches, education sites, businesses, and homes that played an important role in the heritage of African Americans. Free.

HISTORY.



Cheraw Walking Tour

Cheraw Historic District

One of the best ways to see Cheraw is on foot. Take advantage of a nice day and stroll through the 213-acre Cheraw Historic District, listed on the National Register of Historic Places. The complimentary *Historic Cheraw Self-Guided Walking Tour* brochure is a great companion, whether you visit only a few sites or the entire tour of 75 homes, businesses, churches, and parks. Free.

Dizzy Gillespie Tour

300 block of Huger Street

Cheraw's most famous native son, *Dizzy Gillespie*, spent his early days in Cheraw. Pick up a copy of the *Dizzy Gillespie* brochure, and with this self-guided tour, see firsthand the places that shaped the life of this future jazz icon, beginning with the site of the Gillespie homeplace. Free.

Historic Cheraw Cell Phone Tour

Cheraw Town Green | 843.865.3002 | cheraw.com

Cheraw's history comes to life with this complimentary self-guided cell phone tour. This leisure stroll through Cheraw's 10-block historic area includes 25 tour stops, providing over 50 historical tidbits of information. While the tour may begin at any stop, many visitors start the tour on the Cheraw Town Green. Free.

Ingram's River Artifacts Room

204 Market Street | 843.537.6565

Located behind town hall, this interesting collection showcases diving finds made in the Great Pee Dee River. Located in the Miller Ingram Law Office, enter through the law office door on weekdays and tell the receptionist you would like to see the display. Free.

Lyceum Museum

Cheraw Town Green | 843.537.8425 | cheraw.com

This one-room museum features exhibits on Cheraw's history, from the pre-colonial area to the 1970's. A key to the museum is available weekdays at the town hall and the chamber of commerce. Free.

Old St. David's Church & Cemetery Tour

100 Church Street | 843.537.8425

Built in the 1770's, the graves of soldiers from most American wars and the first Confederate monument ever erected may be found in the church cemetery. A complimentary brochure shares the rich history of this special place in a self-guided tour. The church is open free to the public on request, and the sanctuary is available for a fee for weddings and special occasions.

Southern African American Heritage Center

125 Kershaw Street | 843.921.9989

Dedicated to preserving African-American contributions in Chesterfield County, the center also features an exhibit dedicated to jazz great Dizzy Gillespie. For admission costs and museum hours, contact the center.



Live OUTSIDE.



Golf Courses

Cheraw's mild climate allows you to play one of our award-winning, affordable courses year-round. Located on the same sand hills ridge as the famous Pinehurst courses, both courses are located on US Highway 52, four miles south of Cheraw.

Cheraw State Park Golf Course

100 State Park Road | 843.537.2215 | toll free 800.868.9630
Full pro shop. 18 holes. 6,928 championship layout designed by Tom Jackson. Designated as "Best Places to Play" and "Super Value" by Golf Digest.
southcarolinaparks.com

Moree's Cheraw Country Club

2431 Old Cash Road | 843.537.3412 | cherawgolf.com
Full pro shop. 18 holes. 6,459 yards. First nine holes designed by Donald Ross, one of the most significant golf course designers.

Hunting

Several Wildlife Management Area sites are located in the vicinity with one private preserve. For details on the Wildlife Management Area sites, visit dnr.sc.gov.

Moree's Sportsman Preserve

US Highway 52 South | 843.378.4831 | moreespreserve.com
Unique outdoor experience for both the seasoned hunter and non-hunter. Located ten miles south of Cheraw on approximately 5,000 acres, the 25 to 50-acre ranges offer the best possible hunting environment and game availability. Lodging and meal packages are also available.

Fishing

The area provides a variety of fresh water fishing opportunities including the *Cheraw State Park*, *Carolina Sandhills National Wildlife Refuge*, *Sand Hills State Forest*, and the *Great Pee Dee River* (access at Riverside Park on Church Street). For details about fishing rules and regulations and purchasing licenses, visit dnr.sc.gov/fishing



Live LARGE.



There are more than 96,000 acres of public land in Chesterfield County. In addition to the Cheraw State Park and Cheraw town parks, H. Cooper Black Jr. Memorial Field Trial and Recreation Area, Sand Hills State Forest and Carolina Sandhills National Wildlife Refuge provide extensive facilities for a variety of outdoor activities. Maps, permits, and information are available at the sites. User fees may apply at some sites.

Cheraw State Park

100 State Park Road | 843.537.9656 | southcarolinaparks.com

The oldest and largest park in South Carolina's park system, the park is located on US Highway 52, 4 miles south of Cheraw.

Encompassing 7,361 acres, many activities await your visit.

Enjoy a walk along the lake's boardwalk, camp by the edge of Lake Juniper at one of 17 camping sites or stay for a week in one of the park's cozy cabins. Camp

sites offer electric and water hook-ups, RV dumping station and showers.

Horse camping sites and primitive tent camping are offered as well. Besides the championship golf course, you will find fishing, canoeing, kayaking, camping, picnicking, and a variety of trails for bridle, hiking, nature and mountain bikes. The park also features two large group camps.



www.VisitCheraw.com 9



Sand Hills State Forest

US Highway 1 South | 843.498.6478

A variety of recreational opportunities are available within the 46,000 acres, located 18 miles southwest of Cheraw. Enjoy fishing, hiking, and over 80 miles of equestrian trails as well as camping and picnic sites. The state forest is part of the Wildlife Management Area Program, and hunting is allowed in season. The red cockaded woodpecker, pixie moss and the pine barren tree frog are some of the rare plants and animals you will find here.

Sugar Loaf Mountain

Scotch Road

Towering 100 feet above the surrounding state forest, this mini mountain has been a favorite gathering place for generations. Site includes a 1.7-mile nature trail and primitive and horse camping sites. Sugar Loaf is part of the remains of the oldest mountain chain in North America. Blooming Mountain Laurel in May adds to the beauty of the area. Travel 17 miles on US Highway 1 South. Go north on Ruby-Hartsville Highway for approximately 3 miles, turn on Scotch Road, and follow signs.

H. Cooper Black Jr. Memorial Field Trial & Recreation Area

279 Sporting Dog Trail | 843.378.1555 | southcarolinaparks.com

One of the best field trial facilities on the east coast, both regional and national events are held here throughout the season. With over 20 miles of trails and sand roads for riding horses, the site also has a 24 stall horse barn, secured kennels, 63 corrals, 27 camp sites with electric hook-ups, 33 camp sites without electricity, showers, RV dump station, clubhouse, and arena. Accessible via US Highway 1 South or US Highway 52 South.

Carolina Sandhills National Wildlife Refuge

US Highway 1 South, McBee | 843.335.8401

fws.gov/carolinasandhills

Within the 47,850 acres of the refuge are over 100 miles of hiking and biking trails, wildlife viewing platforms, bird blinds and a number of ponds. Hunting and fishing are allowed during certain seasons, and the area provides an excellent site for bird watching. The refuge is one of the premier sites for viewing the rapidly diminishing longleaf pine/wiregrass ecosystem. Located 24 miles southwest of Cheraw.

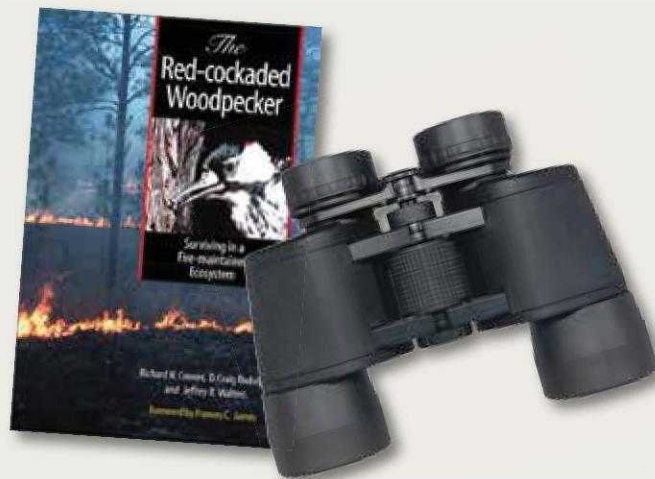
Bird Watching

A number of great sites are available in the area to spot the endangered red-cockaded woodpecker and the southern bald eagle in addition to over 200 species of birds. The *Carolina Sandhills National Wildlife Refuge* has observation towers, viewing platforms and a photography blind. A birding checklist, special events and brochures are available at the refuge. *Cheraw State Park* also offers birding opportunities, especially at the headwaters of Lake Juniper and along the boardwalk trail.

Cheraw Fish Hatchery

433 Fish Hatchery Lane | 843.537.7628 | hatcheries.dnr.sc.gov

Operated by the SC Department of Natural Resources, this hatchery is one of five in the state serving a vital role in the management of South Carolina's fishery resources. Located five miles south of Cheraw on US Highway 1 South, the Cheraw Fish Hatchery is a warm water hatchery, producing approximately 2 million fish annually for stocking the state's public lakes and rivers to enhance recreational fishing activities. To schedule a tour, please call the hatchery manager.





Parks & Recreation Centers

Cheraw has a number of well-maintained parks and recreation facilities, and the town is known throughout the state for its Recreation & Leisure Services program.

Cheraw Community Center

200 Powe Street | 843.537.8421

Basketball court, banquet facilities, teen center, game room, Burr Art Gallery, and administrative offices

Cheraw Gymnastics Center

45 Powe Street | 843.537.8421 | cherawgymnastics.com

Arrowhead Park

989 State Road | 843.537.8421

Four lighted baseball fields, lighted soccer and football field, walking trail, landscaped playground, and picnic shelter

Brown Park

Tote Road | 843.537.8421

Neighborhood playground

Caston Park

Market Street & High Street entrances | 843.537.8421

Four lighted tennis courts, lighted youth baseball field, playground, and picnic shelter

Centennial Park

Corner of Market & Second Streets | 843.537.8421

Large fountain & gazebo; venue for seasonal events

Foundry Hill Park

Corner of Foundry Hill Road & Prestige Park | 843.537.8421

Neighborhood playground and basketball goal

Huckleberry Park

Huckleberry Drive | 843.537.8421

Neighborhood playground and picnic tables

Levi G. Byrd Park

Corner of Church & Front Streets | 843.537.8421
Basketball court and neighborhood playground

Long Park

West Greene Street | 843.537.8421
Neighborhood playground

Riverside Park

Northeast Church Street | 843.537.8421
Enjoy a beautiful panoramic view of the Great Pee Dee River on the observation deck. Park includes dual lane boat ramp, picnic area, covered shelter, nature area, and walking trails.

Southside Park

Roddy Street | 843.537.8421
Baseball field & neighborhood playground



Live to EAT.

**Bill's BBQ**

3566 Highway 9 West | 843.865.9177

Bobo's Sports Tavern

171 Second Street

Bojangles

881 Chesterfield Highway | 843.537.1636

Brady's Restaurant

80 Powe Street | 843.537.4846

Burger King

1014 Chesterfield Highway | 843.921.2004

Cabin Creek Restaurant

2529 US Highway 1 | 843.537.4195

China King

157 Second Street | 843.537.8980

China Town Buffet

540 Chesterfield Highway | 843.921.9288

College Inn Diner

324 Second Street | 843.537.3535

Country Kitchen

908 Chesterfield Highway | 843.537.3662

El-Sherif's House of Pizza

315 Second Street | 843.921.0066

Fatz Café

973 Chesterfield Highway | 843.537.4205

Fiesta Tapatia

803 Market Street | 843.921.0200

Hardee's

801 Market Street | 843.537.3691

Huddle House

686 US Highway 1 | 843.537.0222

Hunter's Lounge

155 Second Street

Hwy. 55 Hamburgers

1624 Chesterfield Highway

Jesse's Subs

1153 West Greene | 843.537.6999

Kentucky Fried Chicken

428 Chesterfield Highway | 843.537.3371

Mary's Restaurant

134 Market Street | 843.537.6790

McDonald's

300 Chesterfield Highway | 843.537.4090

Oskar's

130 Second Street | 843.320.0303

Oslo's Spirits & Grill

302 Chesterfield Highway | 843.537.6000

Pizza Hut

203 Chesterfield Highway | 843.537.5206

River's Edge Restaurant & Bakery

162 Second Street | 843.537.1109

Seasons of Cheraw

129 Market Street | 843.537.3190

Sonic Drive-In

310 Chesterfield Highway | 843.537.0134

Sub Station II

1040 Chesterfield Highway | 843.537.5750

Subway

441 Chesterfield Highway | 843.537.6804

The Shed

116 Second Street | 843.253.5282

Tokyo Japanese Cuisine

1040 Chesterfield Highway

843.537.6008

Wendy's Hamburgers

875 Chesterfield Highway

843.537.3347



Live COMFY.



Cheraw State Park Cabins & Campground

100 State Park Road | 843.537.9656 | 866.345.7275
southcarolinaparks.com

Days Inn of Cheraw

820 Market Street | 843.537.5554 | 800.325.2525
daysinn.com

Executive Inn

710 Market Street | 843.537.2101 | 800.424.6423

Inn Cheraw

321 Second Street | 843.537.2011 | 800.535.8709
inncheraw.com

Quality Inn

885 Chesterfield Highway | 843.537.5625 | 877.424.6423
qualityinn.com

Spears Guest House

228 Huger Street | 843.537.1097 | 888.424.3729
spearsguesthouse.com
Properties include four bedroom guest house, two short term
apartments and cabin

Shopping

Shop the brick-lined sidewalks of Cheraw's historic downtown district for a variety of retail and specialty shops, an antiques store, and locally owned restaurants. On the edge of downtown, along the SC Highway 9 corridor, you will find specialty shops, national retailers, and grocery chains.

Live HERE.



Climate

Cheraw enjoys four distinct seasons and generally moderate temperatures:

- Average January Temperature: High 53° F/ Low 31° F
- Average April Temperature: High 74° F/ Low 48° F
- Average July Temperature: High 91° F/ Low 70° F
- Average October Temperature: High 74° F/ Low 50° F

Medical Care

Chesterfield General Hospital is a 59-bed hospital, offering a wide-range of healthcare services. CGH is located at 711 Chesterfield Highway. For more information, visit chesterfieldgeneral.com or call 843.537.7881. Emergency 911.

Location

Cheraw is located in the northeastern midlands of South Carolina, and is easily reached via US Highway 1, US Highway 52, and SC Highway 9.

- | | | | |
|-----------------|----------|--------------------|-----------|
| • Florence, SC | 40 miles | • Myrtle Beach, SC | 100 miles |
| • Pinehurst, NC | 45 miles | • Charleston, SC | 155 miles |
| • Charlotte, NC | 75 miles | • Asheville, NC | 205 miles |
| • Columbia, SC | 90 miles | | |

Cheraw Farmers Market

Front Street, across from Old St. David's Church
Area farmers share their delicious homegrown produce, generally beginning in the spring and ending in the late fall. During the summer, the market is open on Tuesdays, Thursdays, and Saturdays.



Transportation

Cheraw Municipal Airport

Lynch Bellinger Field | South Carolina Highway 9
843.537.6423 | 843.537.5091

5,000 ft. runway. Commercial airports are located in Florence, Columbia, Myrtle Beach, Charlotte.

Enterprise Car Rentals

697 Chesterfield Highway | 843.537.6250

Amtrak

Hamlet, NC | 800.872.7245

Media

The Cheraw Chronicle: 843.537.5261

The Link: 843.537.7887

WCRE 1420 AM | 93.9 FM: 843.537.7887

The Chesterfield County Shopper: 843.537.2791



Research

Matheson Library

227 Huger Street, Cheraw | 843.537.3571 | chesterfield.lib.sc.us

Genealogy

Matheson Library History Room

227 Huger Street, Cheraw | 843.537.3571 | chesterfield.lib.sc.us

Chesterfield County Library

119 Main Street, Chesterfield | 843.623.7489

Chesterfield County Courthouse

200 W. Main Street, Chesterfield

Chesterfield County Genealogical Library

2249 W. Main Street | 843.623.2244 - call first
chesterfield.scgen.org

Important Numbers

Office of Tourism: 843.537.8425 | 888.537.0014

Greater Cheraw Chamber of Commerce:
843.537.7681

Town Hall: 843.537.7283

Fire Department: 843.537.5941 non-emergency
911 emergency

Police Department: 843.537.7868 non-emergency
911 emergency

Cheraw Community Center: 843.537.8421

Live LIFE.



Visit cheraw.com and facebook.com/cheraw.carolina for updates and additional events. The Cheraw Arts Commission has a regular schedule of events. Call 843.537.8421 x12 for details.

Late March to Early April

Cheraw Spring Festival

Family entertainment, great food, arts & crafts, children's activities & more
Cheraw Community Center & Downtown Cheraw
843.537.8421 | cheraw.com

April

Taste of Cheraw

The Greater Cheraw Chamber of Commerce hosts this annual social event.
Ticketed event | 843.537.7681
cherawchamber.com

May

Third Thursdays

Live band, dancing & fun
Cheraw Community Center,
200 Powe Street
Admission charged
843.537.8421 | cheraw.com

June

Third Thursdays

Live band, dancing & fun
Cheraw Community Center,
200 Powe Street
Admission charged
843.537.8421 | cheraw.com

July

Independence Celebration

Downtown children's parade and music and fireworks at dusk July 3
Free admission | 843.537.8421
cheraw.com

Third Thursdays

Live band, dancing & fun
Cheraw Community Center,
200 Powe Street
Admission charged
843.537.8421 | cheraw.com

August

Third Thursdays

Live band, dancing & fun
Cheraw Community Center,
200 Powe Street
Admission charged
843.537.8421 | cheraw.com

October

South Carolina Jazz Festival

Celebrate native son Dizzy Gillespie's birthday with great music, food & fun during the third weekend in October. Admission charged on some events | 843.537.8421
scjazzfestival.com

December

Cheraw ChristmasFest

Celebrate Christmas with family fun. Santa, children's rides, activities & more
Downtown Cheraw | Second Saturday | cheraw.com

Cheraw Christmas Parade

Downtown Cheraw
cheraw.com

A number of Christmas concerts, movies, and events are planned throughout the month. Visit cheraw.com and facebook.com/cheraw.carolina for dates & times.



Welcoming Guests for
Over 250 Years



| LEGEND | | Points of Interest | |
|-------------------|--------------|--------------------|---------------------------------|
| V | Visitor Info | 1 | Town Green |
| P | Parking | 2 | Town Hall |
| L | Lodging | 3 | Market Hall |
| H | Hospital | 4 | Old St. David's Church |
| G | Grocery | 5 | Chamber of Commerce |
| ATM | ATM | 6 | Community Center |
| S | Schools | 7 | Downtown |
| L | Library | 8 | Dizzy Gillespie Homesite Park |
| H | Restrooms | 9 | Arrowhead Park |
| P | Golf Course | 10 | Northeastern Technical College |
| P | Parks | 11 | Cheraw State Park |
| A | Airport | 12 | H. Cooper Black Recreation Area |
| Historic District | | Downtown District | |
| • Tours | | • Restaurants | |
| • Lodging | | • Lodging | |
| • Recreation | | • Shopping | |
| | | • ATM | |
| | | Highway 9 Corridor | |
| | | • Restaurants | |
| | | • Lodging | |
| | | • Shopping | |
| | | • Medical | |
| | | • ATM | |



Explore. Relax. Enjoy.

c. 1730

Named for the Cheraw Indians, whose settlement was nearby, Cheraw began as a small trading post at the head of navigation on the Great Pee Dee River. By 1750, Cheraw was one of six places in South Carolina appearing on English maps and was an established village with a growing river trade. Joseph and Eli Kershaw were granted a part of what is now Cheraw in 1768 and shortly thereafter laid out the wide streets and Town Green, now the heart of the 213-acre National Register Cheraw Historic District.



“I MADE CHER

Sizzle!

***Dial (843)865-3002
and uncover
Cheraw’s
fascinating
past with our
complimentary***

***Historic
Cheraw
Cell Phone
Tour.***



AW'S HISTORY

”

– *Queen Victoria*



WHERE OUR

HISTORY
Comes to Life!



Located in the northeastern midlands of South Carolina, Cheraw is a 40 minute drive from I-95 at Florence or Dillon, 85 miles northeast of Columbia, SC and 75 miles southeast of Charlotte, NC. Cheraw is easily reached via US 1, US 52 or SC 9.

For more information come see us at the

Cheraw Office of Tourism

200 Market Street, Cheraw, SC 29520

Call us at 843-537-8425 or toll free at 888-537-0014

Visit our web site at

www..com

This guide is not an all inclusive listing of area businesses and attractions. Every effort has been made to ensure accuracy.





South Carolina
Cotton Trail

P.O. Box 578
Hartsville, SC 29551



★ Please visit the
South Carolina
Welcome Centers
for traveler assistance

South Carolina
Smiling Faces Beautiful Places
DiscoverSouthCarolina.com



South Carolina
Cotton Trail™
Pick a Bale of Adventure



High

Discover how
a whole way

Explore the l
when times v
about the lea
weevil. Find
machines are
cotton gin w
through histo
towns, farms
museums an

The South C
Cotton Trail
through a 90
area stretch
to I-20. Jum
around and
to discovery!

Darlington

Pop. 6,720 (Food/ lodging)

As you approach town, you'll pass internationally known **Darlington Raceway** and the Raceway Museum. (Daily, 9-5 admission) On the second Saturday in May, **The Dodge Challenger 500** caps a week of race festivities.

Surrounded by large plantations, Darlington developed around the county court house established in 1785. The town escaped wholesale damage during the Civil War, and some antebellum homes remain, particularly in the Pearl Street area. Cotton was King here until after WWI when flue-cured tobacco became the most profitable crop.

Darlington has several other **historic areas**. Cashua Street and the West Broad Street area feature Victorian homes. The St. John's district has early dwellings and a school complex.

Once home to an open air cotton market, the **Public Square** retains many of its early commercial buildings. The Chamber of Commerce is housed in one of these, the 1902 Cotton and Tobacco Exchange Building. A free walking tour brochure is available here. "Our Pat," a 19th century fire engine, is on display just off the Square.

An old cotton gin, warehouses and tobacco auction barns scattered along Broad and Main are testament to past agricultural commerce. Near the bypass, the Hartsville Oil Mill still processes cotton seeds into oil. While tobacco has waned, cotton is still a major crop here. Darlington celebrates its agricultural heritage at the **Sweet Potato Festival** in October.



Public Square mural in Darlington

Society Hill

Pop. 700 (Food Only)

In 1736, a group of Welch Baptists settled in the "Welch Neck." They eventually moved up to the hill above the river where the St. David's Society had established an academy in 1777. The Society's Hill flourished, and cotton profits built most of the early 19th century dwellings on Main Street. A guide to Society Hill's historic district and more information are available at the Town Hall on Main Street. Watch for the Catfish Festival in November.

Don't Miss:

The Society Hill Historic District

View the **Old Library**, c.1822, on Main Street, and two rare 19th century stores, **Coker-Rogers Store**, c. 1860, and the **Sompayrac Store**, c. 1813. **Trinity Church**, c.1834, and **Welsh Neck Baptist Church Graveyard** are also fascinating glimpses into the past.



The old Society Hill Library, c.1822.



Cheraw

Pop. 5,500 (Food/Lodging)

Named for the Indians who founded at the head of navigation in 1740. The tree-lined streets, laid in 1768, are home to more than antebellum buildings, despite the town's occupation by both the U.S. Army in 1865 and the British in 1780. With the coming of steam in 1819, Cheraw became an important commercial center and the home of bankers and cotton brokers. In 1850, the largest bank outside Charleston and the area's largest cotton market were located here. Be sure to pick up a free self guide to the **Cheraw Historic District** and the "**Cheraw Cotton Tale**." The downtown has antiques, gift shops and churches. The **Cheraw Spring Festival** and **Festival** the third week-end in

Don't Miss:

Old St. David's Church. Built by British, American, Union and Confederate soldiers, the oldest **Confederate Monument** in the church can be picked up at 221 Market St. **Riverside** by steamboat until 1926, is nearby.

The Cheraw Town Green. The **Market Hall**, the 1837 **Market Hall**, the c.1825 **Cheraw Lyceum** on Cheraw. There's also a statue (the **Gillespie Home Site Park**) on the **Pee Dee River Artifacts** Market Street. **Lyceum** key of Commerce). South Carolina information is available at the Green at 221 Market St.

cotton plantation.
19th century, but
more profitable.
Historic
plays on crop
Sonoco. Now
und to make
1848 John Hart
College founded
worth exploring
Watch for the
m's Farm corn
Hartsville.

Developed by
tion on the banks
plants, azaleas, camellias
e. Canoes are available.
horticultural theme.
r round down to dusk.
changing displays tell the
ustrial innovations. The



19th century high wheel is used
to spin thread from cotton fiber
at the Hartsville Museum.



Don't Miss:

The Darlington County Historical Commission's collection of photographs and relics located in the old jail behind the Square. (Hewitt St. M-F from 9-5; 843 398-4710)

Blue Sky's famous Bicentennial Mural depicts the Square as it was before 1939. It is fun to note the buildings still on the Square.

Williamson Park on Spring Street is a great place to picnic and explore a swamp ecosystem.

You can proceed from Darlington on US 52 North (N. Main St.) for 15 miles to Society Hill or you can take a more scenic route by following Cashua Street east and turning left at the bottom of the hill onto the Old Society Hill Road.

Exploring the Countryside:

In the early 1920's the boll weevil, worn out fields and low cotton prices brought ruin to many. The New Deal in the 1930's brought Federal conservation projects to these worn out lands. Just south of Cheraw, Cheraw State Park became South Carolina's first state park. The more than 7,000 acres are now home to an award winning golf course, lakes, hiking trails, cabins and campsites. US 52 south of Cheraw. 843 537-9656.

Side Trip:

Other New Deal projects on former cotton lands are located on US 1 south of Cheraw. Sandhills State Forest offers hiking, camping, ponds, a major field trial center for sporting dogs and Sugar Loaf Mountain. Carolina Sandhills National Wildlife Refuge near McBee features an interpretive center, bird watching blinds and hiking trails.

In the early 1920's the boll weevil, worn out fields and low cotton prices brought ruin to many. The New Deal in the 1930's brought Federal conservation projects to these worn out lands. Just south of Cheraw, Cheraw State Park became South Carolina's first state park. The more than 7,000 acres are now home to an award winning golf course, lakes, hiking trails, cabins and campsites. US 52 south of Cheraw. 843 537-9656.

Established in 1819, Beaufort County, one of the state's great, the rich farm land once sold and Victorian homes here for profits. A cotton gin, which visitors to watch the ginning also want to note the D.D. McCrory c.1903. Watch for special events at the Civic Center and for the July

Don't Miss:

The Marlboro County Museum collection of buildings including its unique painted ceiling. The Academy and a museum housing exhibits on agriculture, medicine, printing and rural life. A private owner displays some of his classic cars across the street. (121 S. Marlboro St. M-F 843 479-5624, free) South Carolina Cotton Trail and local information available.★

The Courthouse Square.

The historic commercial area of buildings with elaborate facades these were built at the time of a

Side Trip:

Blenheim. Blenheim Girard at many places along the Cotton Trail springs and old bottling plant

Clio

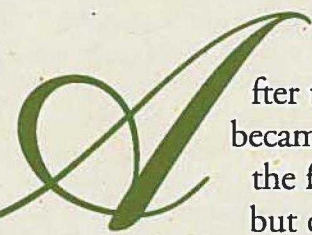
Pop. 1,050 (Food/B&B)

Clio's (Cly-O) golden age when fortunes were made from

Don't Miss:

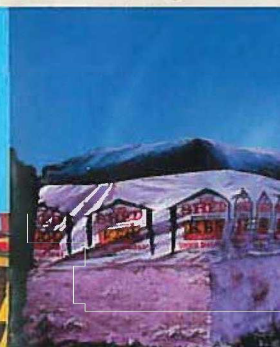
The People's Cotton Gin Just across the way is an ancient

Clio Historic District. A map is available at the old train depot (SC 9). South Carolina Cotton



fter the discovery of the cotton gin at the end of the 18th century, cotton became the main money crop across the South. "King Cotton" dominated the fields and the economy. Today, soybeans and other crops also grow here, but cotton is still a vital part of the agricultural economy.

*Come at any time
to see and do, and*



Cotton as a crop is as fascinating as its place in American history.

In the spring, cotton is planted, lavender clusters of wisteria and dogwood frame fields and roadsides, and sorrel turns some fields a brilliant red.

In the summer, the crop waits for the long, warm days of midsummer to flower. The cotton flower resembles its cousin the hibiscus and opens a creamy white, changing to deep pink as it matures. By August, cotton bolls are beginning to open, and the cotton inside is just visible through the foliage. By late August defoliation begins, and the cotton pops into view.

In the fall, fields are white with open cotton bolls, the cotton pickers are feeding the module builders and the gins are going full steam.

In the winter, the cotton is picked, and the fields wait planting for next year. Tufts of cotton have caught in trees and along roadsides. In good years, the gins run well into the winter.

Informa

Visit www.sccotn.com
the SC Cotton Trail

Darlington, Hartsville and
Darlington County Tourism
PO Box 578 (214 North F
Hartsville, SC 29551
Phone: (843) 339-9511
Toll-Free: 1-888-427-8720
Website: www.darlingtoncountytourism.com

Bishopville Area
Lee County Chamber of Commerce
PO Box 187 (221 North M
Bishopville, SC 29010
Phone: (803) 484-5145
Website: www.leecountychamber.com

Old English Tourism District
1-800-968-5909



**SITE REASSESSMENT
BURLINGTON INDUSTRIES CHERAW
SCN 000 404 896
CHERAW, SOUTH CAROLINA
CHESTERFIELD COUNTY**

Prepared for:



**U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
61 Forsyth Street
Atlanta, Georgia 30303**

Prepared by:



**South Carolina Department of Health and Environmental Control
Division of Site Assessment and Remediation
Federal & State Site Assessment Section
2600 Bull Street
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September 5, 2017


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1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Federal and State Site Assessment Section, South Carolina Department of Health and Environmental Control (DHEC) has conducted a Site Reassessment (RA) for the Burlington Industries Cheraw site (the Site) in Chesterfield County, South Carolina. The information gathered from this investigation will be used to decide future CERCLA activity at the site.

2.0 LOCATION

The site is located at 650 Chesterfield Highway within the city limits of Cheraw, in Chesterfield County. The site encompasses an approximate 50-acre parcel with a large manufacturing complex (now owned and operated as Highland Industries), and multiple residential lots to the north and northwest (developed and vacant) where former sludge drying beds were located. When Burlington Industries originally built the plant in the late 1950's, these lots were part of the plant property (Ref. 5). The geographic coordinates of the Site are 34.695531° N, - 79.913499° W (Appendix B).

3.0 OWNERSHIP

Manufacturing Facility:

1988- present
Highland Industries
Takata Corporation of Japan (Parent Company)
650 Chesterfield Hwy
Cheraw, SC 29520

Opened 1961 by Burlington Industries, also known as James Fabric Plant

(Ref. 5)

4.0 SITE HISTORY / DESCRIPTION

In October 2015, the SCDHEC Site Assessment section was contacted by a resident that had reason to believe that some sort of wastewater unit had been historically located on his property and/or an adjacent vacant lot. SCDHEC conducted an Expanded Pre-CERCLIS Site Assessment (XPSA) in May 2016. Research during the XPSA concluded that there had been sludge drying beds located on at least one (now vacant) residential lot. Sampling for the XPSA found elevated levels of PCBs (Aroclor 1248) in the vacant residential lot and the adjacent drainage ditch, which originates on the manufacturing property (Ref. 3,4).

Burlington Industries Cheraw
SCN 000 404 896
Site Reassessment

The SCDHEC Superfund State Remedial group began a sampling effort in late August 2016 to further characterize the site. Between August and November 2016 SCDHEC collected several hundred samples from the manufacturing facility, residential yards and along the surface water pathway leading from the former Burlington Industries site. Elevated PCBs (Aroclors 1248 & 1254) were found in numerous residential yards near the facility and in sediments flood plain soils along the surface water pathway for several miles (Ref. 7,8,9). This Reassessment is focused on sampling and delineation of wetlands along the upper surface water pathway.

5.0 PATHWAY EVALUATION

5.1 GROUNDWATER MIGRATION PATHWAY

The Town of Cheraw municipal water system provides drinking water to the area surrounding the site, sourced from an up-gradient location on the Great Pee Dee River (Ref. 2). There are no known drinking water wells within 1/4-mile of the site, and due to the presence of public water lines in the area it is unlikely that any wells are located within 1 mile (Ref. 1, 4). Based on the limited groundwater use in the area, the groundwater pathway was not evaluated further for this report.

5.2 SURFACE WATER MIGRATION PATHWAY

Regional Characteristics Targets

The site lies within the Pee Dee River sub-basin (Ref. 6). A small drainage ditch that begins on Highland Industries property flows between residential lots in a northerly direction approximately 1,000 feet to meet a perennial easterly-flowing creek. This unnamed creek flows approximately one mile to the east to meet Wilson Branch (Ref. 1). Wilson Branch flows in a northeasterly direction for 1/2-mile to meet Huckleberry Branch. Huckleberry Branch flows 1.5 miles east southeasterly to reach the Great Pee Dee River. The 15-mile target distance limit for purposes of this report ends approximately 12 miles downstream in the Great Pee Dee River near Bennettsville (Ref. 1). There are several ponds located along the surface water pathway near the intersection of Wilson Branch. See Figure 1 for an overview of the surface water pathway.

Wetlands

The principal focus of this Reassessment was to delineate and sample wetland areas along the unnamed creek upstream of Wilson Branch. As shown Figure 2, US Fish & Wildlife Service National Wetlands Inventory maps show a large (PF01Bd) wetland area along the unnamed creek north northwest of Long Middle School and a small isolated wetland near the ditch leading from the former Burlington Industries site along the unnamed creek (Ref. 10). Field verification delineation by SCDHEC of these areas determined the extent of wetlands as shown in Figure 3 (Ref. 11). The wetlands frontage delineated is estimated to be 672 feet (Ref. 1,11). Sediment samples were collected from wetland areas along the unnamed stream from a location near the Edgewood Drive Funderburk Drive intersection to Jersey Street (see Figure 4). Wetland background samples for comparison were collected from an unnamed tributary of Huckleberry Branch and Huckleberry Branch upstream of its confluence with Wilson Branch (see Figure 5).

Significant elevations of Aroclors 1248 and 1254 were detected in all samples collected from this stretch of stream and associated wetlands (Ref. 13). See Table 1 below for Aroclor wetlands detections:

Table 1

| Burlington Cheraw Wetlands Aroclor Detections | | | |
|---|------------|-----------------|-----------------|
| samples collected 2/17/17 & 3/2/17 | | | |
| see Figures 4 & 5 for sample locations | | | |
| all results in ug/kg (ppb) | | Aroclor 1248 | Aroclor 1254 |
| BACKGROUND SAMPLES | BIC-201-SD | ND (13) | ND (13) |
| | BIC-202-SD | ND (15) | ND (15) |
| | BIC-203-SD | ND (14) | ND (14) |
| | BIC-204-SD | ND (13) | ND (13) |
| Unnamed Stream Upstream of Wetland Area | BIC-101-SD | 320,000 | 120,000 |
| | BIC-102-SD | 41,000 | 22,000 |
| DELINEATED WETLAND AREA | BIC-103-SD | 9,600 | 6,800 |
| | BIC-104-SD | 11,000 | 8,900 |
| | BIC-105-SD | 7,100 | 3,400 |
| | BIC-106-SD | 4,200 P | 2,000 |
| | BIC-107-SD | 22,000 | 9,200 |
| | BIC-108-SD | 10,000 | 4,600 P |
| Notes: | | | |
| P - Relative Percent Difference (RPD) between two GC columns exceeds 40% | | | |
| ND - Not detected at or above the PQL (PQL) | | | |

(Ref. 13)

Fisheries / Resources

Fishing is likely to occur in the ponds east of the site as well as Wilson Branch, Huckleberry Branch, and the Great Pee Dee River (Ref. 1, 6). A town park is located along this creek beyond the ponds with obvious recreational use of the creek for wading/playing (Ref. 7).

5.3 SOIL EXPOSURE / AIR PATHWAYS

Significant PCB contamination has been documented on residential properties both near the site and also along the surface water pathway (contaminated via flooding). A Removal Action is currently in progress at the site by USEPA Region 4 Emergency Response, Removal, and Prevention Branch, to date focusing on residential yards nearest the facility.

Burlington Industries Cheraw
SCN 000 404 896
Site Reassessment

6.0 SUMMARY / CONCLUSIONS

The Burlington Industries Cheraw site was initially a citizen complaint to SCDHEC questioning whether wastewater units had been located on what is now residential property. Multiple rounds of sampling have found elevated levels of PCBs in numerous residential yards near the site and along the surface water pathway. Also, sediments within the surface water pathway and flood zone have shown elevated PCBs for several miles downstream. This investigation delineated a wetlands area along an unnamed stream near the site and confirmed similar PCB elevations within the wetlands.

The data generated as part of this investigation will be used in the Hazard Ranking System documentation package for potential placement on the National Priorities List (NPL).

7.0 REFERENCES

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11. William R. “Rusty” Wenerick, SCDHEC Memo to Jonathan G McInnis, SCDHEC concerning the wetland boundaries below Burlington Industries Cheraw. Undated (received March 2017).
12. William R. “Rusty” Wenerick, SCDHEC. Project Note – Supplemental Information on March 2017 Wetlands Delineation below Burlington Industries Cheraw. July 25, 2017.
13. Shealy Environmental Services, Inc. Report of Analysis – Burlington Industries Cheraw sampling from 2/16/17 and 3/2/17.

APPENDIX A: MAPS / FIGURES

Figure 1 - Surface Water Pathway to Great Pee Dee River

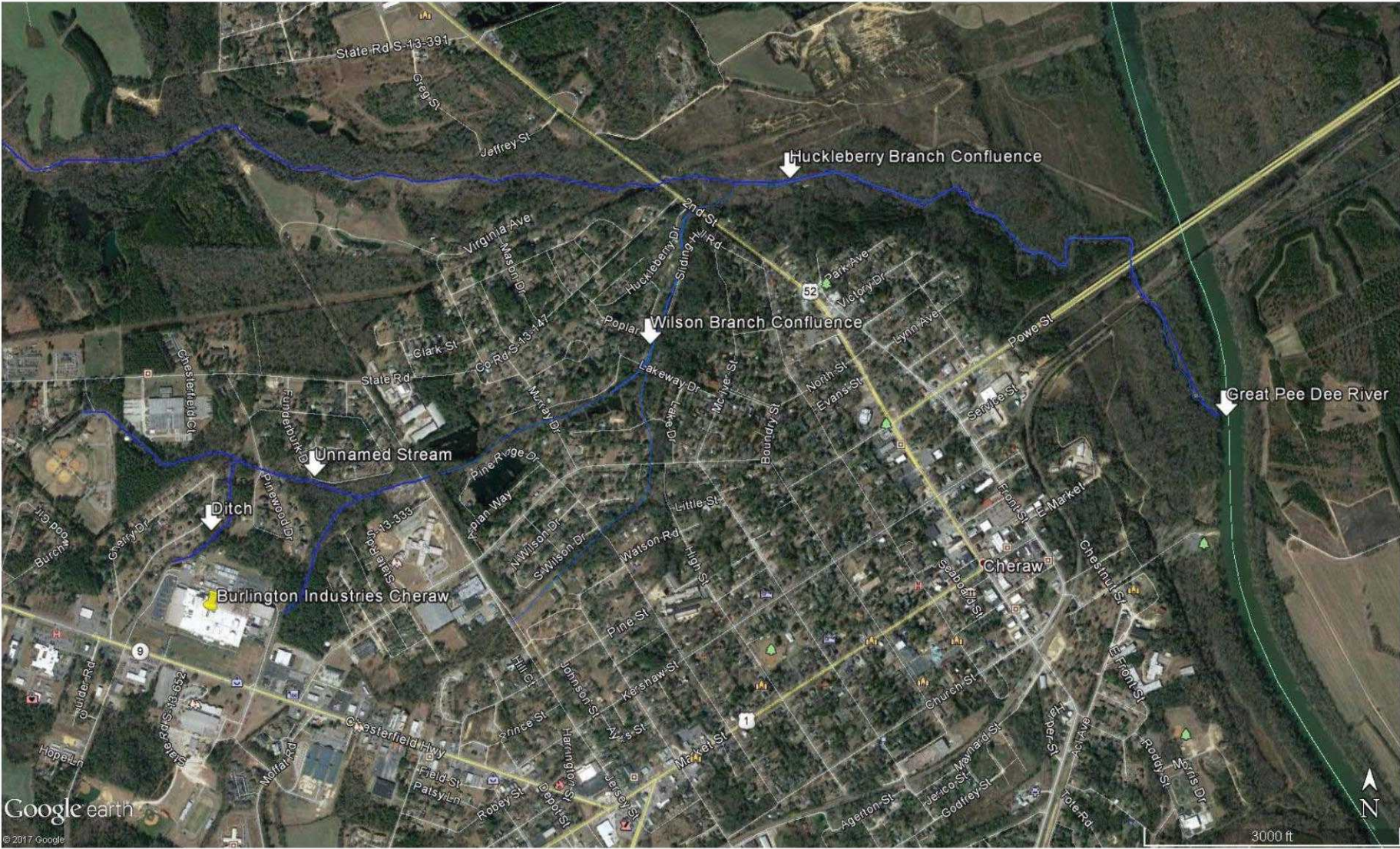


Figure 2 – National Wetlands Inventory Maps near Burlington Industries Cheraw (NWI Wetlands indicated by yellow/green polygons)

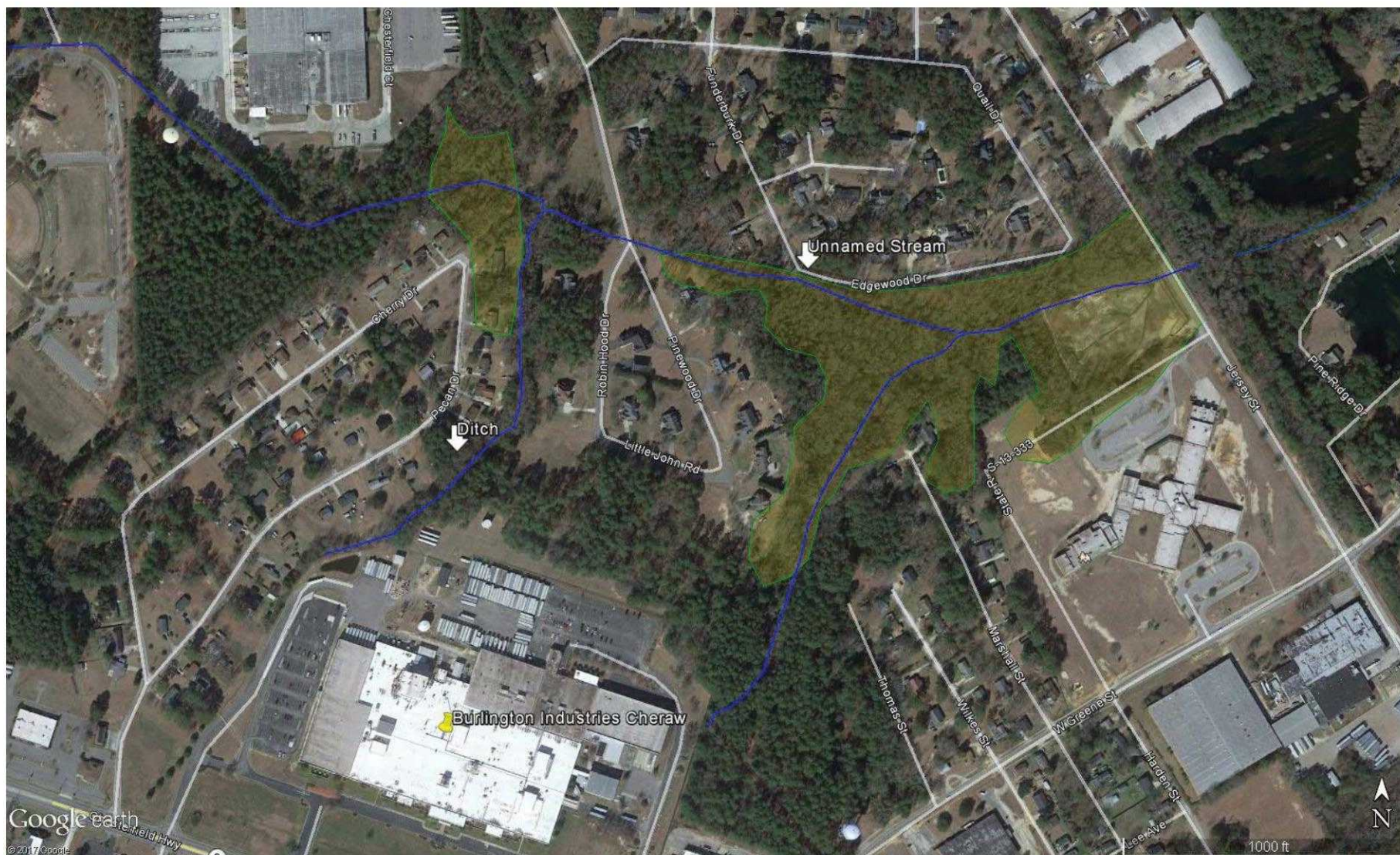


Figure 3 – SCDHEC Delineated Wetlands near Burlington Industries Cheraw (green shaded polygon)

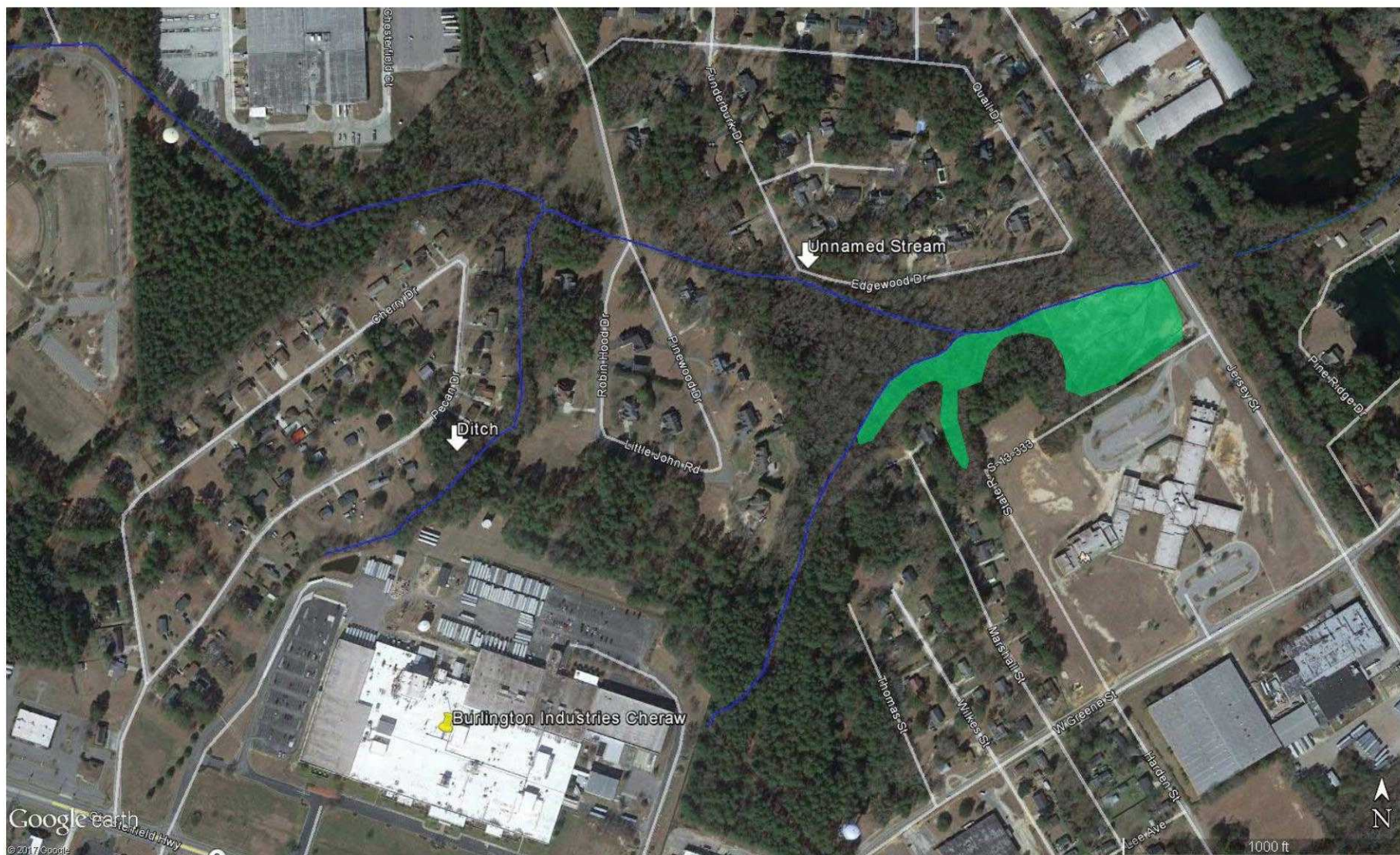


Figure 4 : SCDHEC Wetlands Sampling February/March 2017

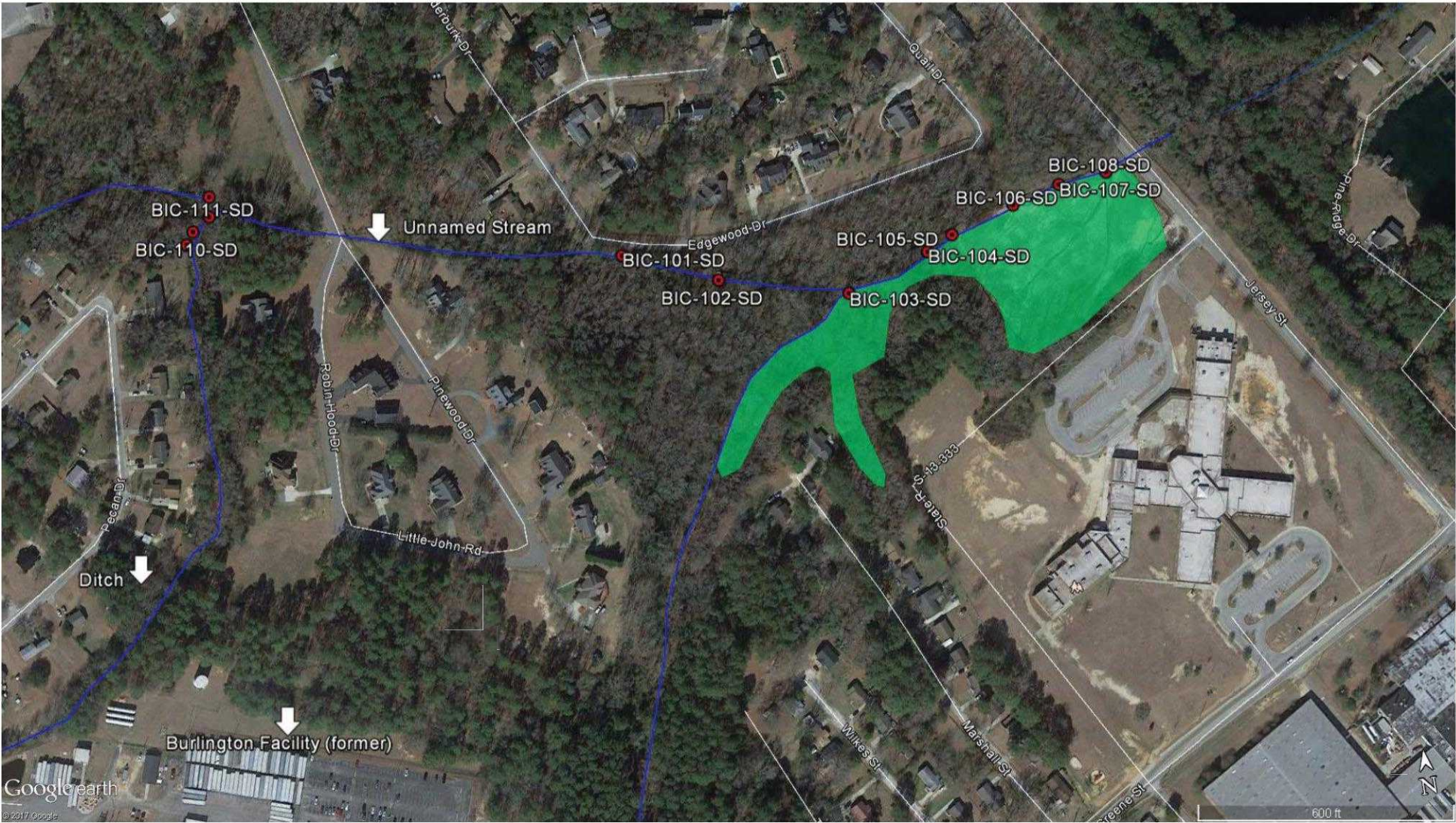
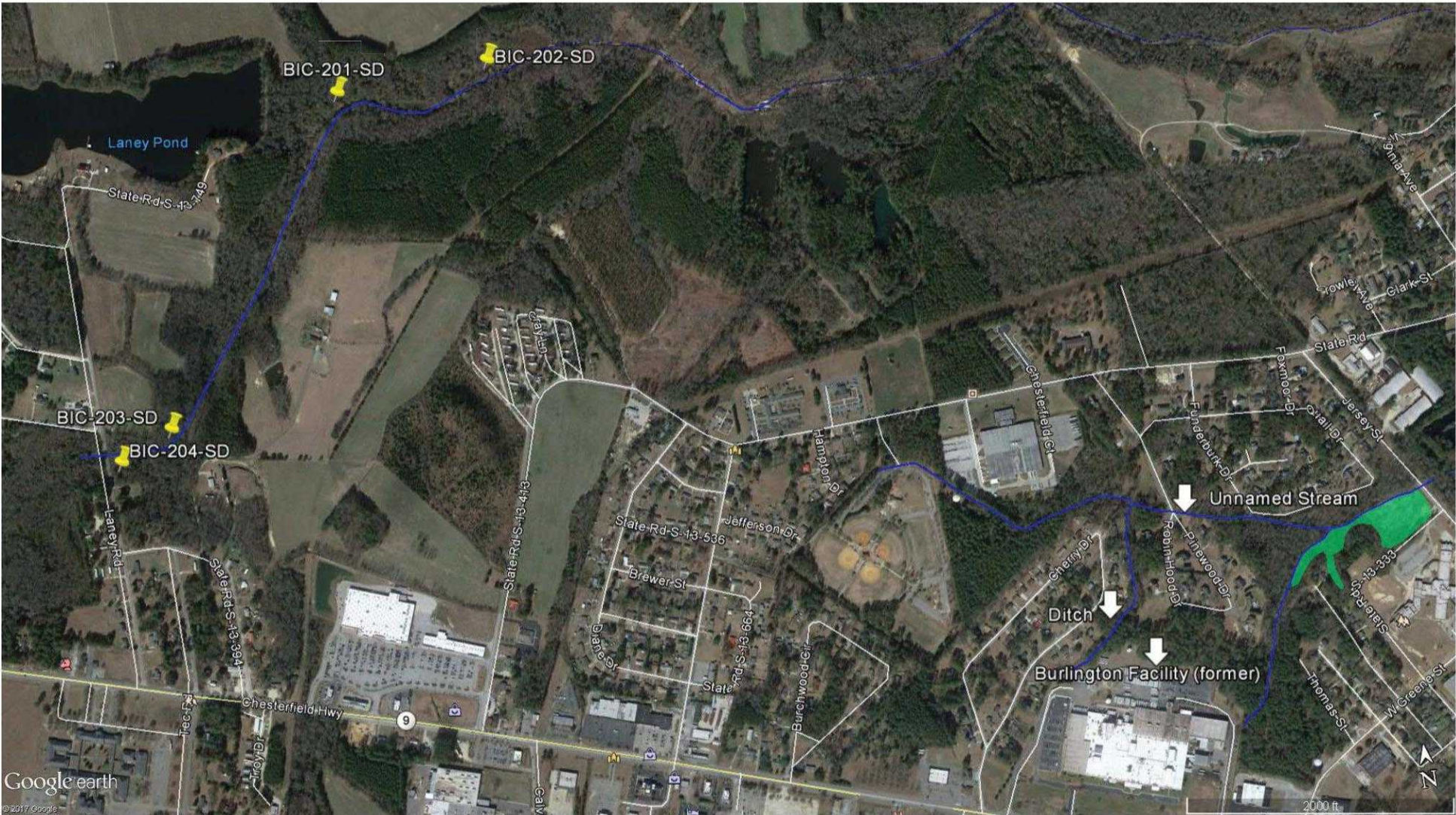


Figure 5: SCDHEC Background Wetlands Sampling March 2017



APPENDIX B: SITE COORDINATE COLLECTION

Site Latitude: 34.695531° N
Site Longitude: -79.913499° W
Feature Description: approximate manufacturing facility front door

Collection Date: March 1, 2016

Note: Site Coordinates collected by photo interpretation in Google Earth (estimated accuracy ~20 meters).

APPENDIX C: ATTACHED REFERENCES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

APR 25 2017

ACTION MEMORANDUM

SUBJECT: Request for Approval of a Time-Critical Removal Action at the Burlington Industries Cheraw Site in Cheraw, Chesterfield County, South Carolina

FROM: Matthew J. Huyser, On-Scene Coordinator
Emergency Response, Removal and Prevention Branch

THRU: James W. Webster, Ph.D., Chief
Emergency Response, Removal and Prevention Branch

TO: Franklin E. Hill, Director
Superfund Division

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of a removal action within a residential portion of the Burlington Industries Cheraw Site (Site) located in Cheraw, Chesterfield County, South Carolina. The Site was referred to the U.S. Environmental Protection Agency Region 4 (EPA) Emergency Response, Removal and Prevention Branch (ERRPB) by the South Carolina Department of Health and Environmental Control (DHEC) on October 4, 2016, based on elevated concentrations of Polychlorinated Biphenyls (PCBs) in residential properties and surface water drainage units. ERRPB completed a Removal Site Evaluation (RSE) on December 14, 2016, and determined that the Site poses a threat to public health and the environment that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions. If approved, the total project ceiling for this action will be \$1,136,400 of which an estimated \$894,000 will be funded through the Regional Removal Allowance.

II. SITE CONDITIONS AND BACKGROUND

Site ID: B49F
CERCLIS ID: SCN000404896
Removal Category: Time-Critical Removal Action



A. Site Description

1. Removal Site Evaluation

In October 2015, the DHEC Division of Site Assessment and Remediation was contacted by a resident in Cheraw, South Carolina, inquiring about an unidentified wastewater unit that had been historically located on his property and/or an adjacent vacant lot. Under a Preliminary Assessment (PA) DHEC determined that there had been several permitted sludge drying beds located on at least one undeveloped lot within the residential neighborhood. The drying beds were constructed by Burlington Industries on or before 1971 as part of a wastewater pretreatment system. Solid components in wastewaters from the plant had purportedly caused blockages within the city sewer. The pretreatment system utilized a clarifier, which separated sludge for the drying beds and sent pretreated water through the city sewer to the public wastewater treatment plant. In 1974, Burlington Industries received a construction permit (Permit No. 2852-C) from DHEC for "a chemical pretreatment system having recycling capabilities comprising units for neutralization, chemical precipitation, dissolved air flotation and sludge handling," which may have been for the purposes of expanding or modifying the existing installation.

According to a 1989 letter from Burlington Industries to DHEC requesting permission to remove or cover remaining solids in the drying beds:

"In the early to mid-1970s, the plant was applying latex and acrylic finishes along with pigment dyes and delusterants to fiberglass fabrics and some of this material was falling out in the sewer lines causing blockage problems for the city. At their request, the plant installed a settling tank and the sludge from this tank were pumped into drying beds behind the plant."

It is unknown at what point the application of these finishes was initiated and at what point they ceased. PCB-containing compounds were used as fabric coatings for heat and/or flame resistance¹ as well as in synthetic resins, rubber, adhesives and de-dusting agent². Prior to construction of the pretreatment system and prior to operation of the Cheraw Wastewater Treatment Facility, the Burlington plant discharged at least some of its wastewater directly to the adjacent ditch. A letter dated March 12, 1970, from the Pee Dee District Sanitation Director to the South Carolina Board of Health Pollution Control Authority Executive Director states that "several complaints have been received by the Chesterfield County Health Department concerning the discharge of a waste product into an open ditch [by the Burlington Industries facility]". The Sanitation Director confirmed by direct observation that "the plant is indeed discharging a green fluid... into an open ditch at the rear of a housing development."

¹ <http://www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/docs/SourcePCBs.pdf>

² Agency for Toxic Substances and Disease Registry Toxicological Profile for Polychlorinated Biphenyls (PCBs). November 2000

Burlington Industries, Inc. purchased the property at 650 Chesterfield Highway in Cheraw, Chesterfield County, South Carolina in 1960. The manufacturing facility was referred to as the James Fabrics Plant and produced woven fiberglass commercial and industrial fabrics. In 1988, the plant was sold to Highland Industries, Inc. The property sale to Highland Industries was only a subset of the overall property footprint owned by Burlington Industries and did not include the location on which the six, sludge drying-beds were located. The drying beds were closed in 1989 wherein approximately 300 cubic yards of dried sludge and soil were excavated and transported to the Chesterfield County Landfill for disposal as nonhazardous waste. Burlington Industries requested permission from DHEC in 1989 to cover the drying beds or dispose of the material as nonhazardous waste; sample analytical results were provided to demonstrate that the waste did not qualify as a RCRA (Resource Conservation and Recovery Act) toxicity characteristic hazardous waste (40 CFR § 261.24). However, no samples were analyzed for the presence of PCBs, and no information or indication was provided to DHEC that the waste stream could be contaminated with PCBs.

The undeveloped land north of the manufacturing plant that was not purchased by Highland Industries, including the land on which the former drying beds sat, was sold by Burlington Industries in 1990 to a developer who subdivided the property into 20 large lots, 11 of which are now occupied by residential structures. Based on the overlay of historical aerial images, it appears that the drying beds sat predominantly on one vacant lot located at the intersection of Little John Road and Robin Hood Drive. At present, the lot is mostly clear, with tree lines along the south, east and west boundaries.

In February 2016, DHEC conducted an expanded PA and collected 10, soil samples (three surface, three subsurface and three sediment samples). During the investigation, DHEC found several small pieces of a dark green or dark-gray, rubbery material on the lot where the former drying beds were located. The same material was found in larger segments along the western edge of the vacant lot. The material appeared to have characteristics consistent with material identified in photographs taken of the drying beds in 1988. Within soil and sediment samples that were collected, laboratory analysis found elevated concentrations of PCB Aroclor 1248 in the residential lot and the drainage ditch at a range of 300 micrograms-per-kilogram ($\mu\text{g}/\text{kg}$) to 14,000 $\mu\text{g}/\text{kg}$. These concentrations exceed the May 2016 EPA Region 4 Regional Screening Level (RSL)³ for Aroclor 1248 which is 230 $\mu\text{g}/\text{kg}$ ⁴.

In response to the unexpected discovery of PCBs at the Site, the DHEC Superfund State Remedial group began a Site Investigation (SI) in August 2016 and collected samples to further characterize the Site. Surface and subsurface soil samples were collected from around the former drying beds, the Highland Industries property and residential yards. Sediment samples were collected from the adjacent drainage ditch and subsequent creek. A Dextsil® L2000DX PCB analyzer was utilized for field screening of samples; 56 of over 100 samples yielded sufficiently positive values using the screening system⁵ and were sent for laboratory analysis. PCB Aroclor 1248 was found in residential yards at concentrations up to 490,000

³ Regional Screening Levels (RSL) are conservative risk-based screening values developed by the U.S. EPA to help identify contaminants of potential concern.

⁴ RSL for Residential Soil with target cancer risk (TR) of 1E-06 and target hazard quotient (THQ) of 1.0

⁵ EPA 600/R-98/109

µg/kg, and Aroclor 1254 was found in residential yards at concentrations up to 590,000 µg/kg (the comparable RSL for PCB Aroclor 1254 is 240 µg/kg). Aroclors 1248 and 1254 were found in ditch sediment samples at concentrations up to 1,900,000 µg/kg and 880,000 µg/kg, respectively.

Additional samples collected by DHEC in September, October and November 2016 investigated more residential properties, additional areas of the ditch near the former Burlington Industries facility, sediments within the surface water drainage corridor into the Pee Dee River, sediments from ponds adjacent to the drainage corridor and soils in Huckleberry Park. PCB Aroclors 1248 and 1254 were found throughout the Site with highest concentrations near the ditch at the west boundary of the former Burlington Industries facility, followed by decreasing concentrations throughout the surface water drainage corridor. The decreasing concentration trend was observed in both sediments and adjacent surface soils. Table 1 contains a summary of PCB Aroclor 1248 and 1254 sample results which exceeded 1,000 µg/kg, as well as subsequent concentration intervals by order of magnitude, from DHEC samples that were collected through October 2016.

Table 1. Count of PCB Aroclor 1248 and 1254 detections above 1,000 µg/kg (aka 1 ppm) and subsequent intervals by order of magnitude within soil and sediment samples collected by DHEC through October 2016

| | ≥1,000 < 10,000 µg/kg | | ≥10,000 < 100,000 µg/kg | | ≥100,000 > 1,000,000 µg/kg | | ≥1,000,000 µg/kg | | Total Samples |
|---------------------------------|-----------------------------|------|-------------------------------|------|----------------------------------|------|---------------------|------|------------------|
| | 1248 | 1254 | 1248 | 1254 | 1248 | 1254 | 1248 | 1254 | |
| Sediment in Ditch near facility | | | 5 | 7 | 8 | 4 | | | 23 |
| Sediment Downstream | 7 | 8 | | | | | | | 26 |
| Pecan Drive Residences | 5 | 31 | 5 | 13 | 7 | 9 | 1 | 1 | 138 |
| Sherwood Forest Residences | 3 | 7 | 2 | | 1 | 1 | | | 21 |
| Huckleberry Park | 7 | 8 | 2 | 1 | | | | | 12 |
| City Parcel by Middle School | 2 | 3 | 3 | 2 | | | | | 5 |
| Highland Industries Property | 1 | 1 | 5 | 5 | | | | | 30 |

Sediments within the ditch at the west boundary of the former Burlington Industries facility show a high degree of uniformity among all samples collected with concentrations of PCBs for each Aroclor in excess of 10,000 µg/kg. Several residences on Pecan Drive show high concentrations of PCBs, and these are parcels that border the drainage ditch. At least six parcels contain PCB Aroclors 1248 or 1254 in excess of 100,000 µg/kg while three more parcels contain concentrations of at least 10,000 µg/kg. One sample in a residential yard on Pecan Drive yielded PCB Aroclor 1248 and 1254 concentrations of 2,100,000 µg/kg and 1,600,000 µg/kg, respectively.

PCB Aroclors were found at concentrations above 1,000 µg/kg within the yards of two occupied residences of the Sherwood Forest community, which is located on the east side of the drainage ditch. Several small segments of dark gray rubbery material, consistent with material DHEC had identified in February, were found in unoccupied parcels of the Sherwood Forest community. Sample results of these materials yielded concentrations of PCB Aroclor 1248 up to 750,000 µg/kg. Concentrations of PCB Aroclors 1248 and 1254 in excess of 10,000 µg/kg were also found on surface soils of a 4.2-acre city-owned parcel north of Long Middle School which had recently been clear cut by the city for storm water management purposes.

Within Huckleberry Park, PCB Aroclor 1248 was found at 1,400 µg/kg within a general grass area. PCB Aroclor 1248 was also found at concentrations ranging from 5,200 µg/kg to 16,000 µg/kg under swing sets within the park. PCB Aroclor 1254 was found at concentrations ranging from 4,700 µg/kg to 13,000 µg/kg within the same samples under the swing sets. After DHEC's August 2016 sampling event, which identified PCBs within Huckleberry Park, the City of Cheraw closed the park to public access. During an October sampling event, DHEC documented evidence of children in the park such as bare footprints and sand/mud that had been placed onto the park slide. A pile of material was found by DHEC along the creek bank which borders the south side of the park. The City of Cheraw identified this material as dredge from the creek, which was removed under approval by the U.S. Army Corps of Engineers for the purposes of improving storm water drainage following Hurricane Matthew.

Contamination of PCBs on the Highland Industries property (former Burlington Industries facility) occurs generally within 150 feet of the drainage ditch. Five locations yielded PCBs of both Aroclors 1248 and 1254 in excess of 10,000 µg/kg and one location yielded PCB concentrations in excess of 1,000 µg/kg. Since purchasing the property in 1988, Highland Industries has expanded the west side of the building and constructed a parking lot and road on the west side within 20 feet of the west property line. Additionally, a stormwater retention unit was constructed, or was expanded, near the point at which the ditch initiates. It is unknown whether construction activities disturbed or otherwise affected soils that were/are contaminated with PCBs.

The EPA Region 4 Superfund Site Evaluation Section reviewed and approved the SI submitted by DHEC in September 2016. Based on the high concentrations of PCBs at the Site, DHEC requested that the EPA Region 4 Emergency Response, Removal and Prevention Branch (ERRPB) conduct a Removal Site Evaluation (RSE). The EPA met with DHEC on October 19 to receive a briefing on the Site, then attended a public meeting where DHEC presented their sampling and investigation findings to residents in Cheraw. The EPA's START contractor (Superfund Technical Assessment and Response Team) digitized data collected by DHEC into the EPA's Scribe database and geospatial publishing service.

Data and digital maps were provided to the EPA's Scientific Support Section (SSS) for risk evaluation. SSS subsequently categorized portions of the Site based on PCB concentration and land use setting. The Tier I category consisted of occupied residential properties displaying PCB Aroclor concentrations greater than 10 times the respective EPA Region 4

Removal Management Level (RML)⁶ for residential soil; Tier II consisted of occupied residential properties with PCB Aroclor concentrations greater than the RML. For purposes of risk assessment, Huckleberry Park was evaluated as a residential property.

The residential soil RMLs for PCB Aroclors 1248 and 1254 are 23,000 µg/kg and 3,500 µg/kg, respectively. Under the Tier I criteria, 10-times the RML for PCB Aroclors 1248 and 1254 will be 230,000 µg/kg and 35,000 µg/kg, respectively. At present, there are six residential properties and 1,000 feet of adjacent drainage ditch which meet Tier I criteria; furthermore, six residential properties and Huckleberry Park meet Tier II criteria. Three unoccupied properties have PCB concentrations which are 10 times the respective Aroclor RML. Additional properties may be added as subsequent sample data are collected and evaluated.

2. Physical Location

The former Burlington Industries facility is currently owned by Highland Industries, Inc. and is located at 650 Chesterfield Highway, Cheraw, Chesterfield County, South Carolina. The original Burlington Industries property extended to the north and east of the facility and covered 93.8 acres. An eastern portion of this property was undeveloped by Burlington Industries and was sold for commercial use. The central parcel of 51.7 acres, which contained the manufacturing facility operated by Burlington Industries beginning in 1961, was ultimately sold to Highland Industries, Inc. in 1988. The northern parcel of 25 acres, upon which the former drying beds are located, was sold to a developer in 1990 who subdivided the property into 20 large lots, 11 of which are now occupied by residences. That development is known as Sherwood Forest. Two residences within the Sherwood Forest development border the contaminated ditch and one borders a downstream unnamed tributary; also, one parcel contains the former drying beds. West of the facility is a development of 61 residences along Pecan Drive which was built in the 1960s. Ten of these residences border the property with Highland Industries along with three undeveloped parcels. Five of these residences plus an additional seven residences along Pecan Drive border the contaminated ditch.

The surface water drainage corridor from the former Burlington Industries facility to the Pee Dee River is approximately 3.2 miles long. Storm water from contaminated soils at the facility and nearby residences flows to a drainage ditch that travels northward approximately 1,000 feet where it joins an unnamed intermittent tributary. The tributary flows approximately one mile eastward; along the way it flows adjacent to three ponds but does not inherently pass through any pond system. The tributary then intersects with Wilson Branch, a perennial creek. Wilson Branch flows northeast for approximately 0.5 miles, and borders Huckleberry Park, until it intersects with Huckleberry Branch. Huckleberry Branch is a perennial creek that flows 1.5 miles east and south until it discharges to the Pee Dee River. The corridor is prone to flooding, particularly in residential yards and the public park along Wilson Branch.

⁶ Removal Management Levels (RML) are risk-based screening values developed by the U.S. EPA to determine whether sample concentrations are sufficiently elevated that they may warrant a removal action. Exceedance of an RML by itself does not require a removal action, nor does it imply that adverse health effects will occur.

3. Site Characteristics

There are approximately 3,008 residents living within one half mile of the surface water drainage corridor and 344 living within one thousand feet of the corridor. Residences within the Pecan Drive community consist of brick exterior single-story homes over crawl spaces and within one half acre lots. Residences within the Sherwood Forest community are generally brick exterior single and double story homes over crawl spaces and within lots of 0.75 to 1.3 acres. The parcel which once contained the drying beds is flat and vegetated.

The ditch that runs between the Pecan Drive residences and the Highland Industries property initiates approximately 350 feet upstream of the discharge pipe of a stormwater retention pond on Highland's property. This initial section of ditch is approximately six to ten feet wide with steep banks of two to three feet at a nearly one to one slope. The ditch begins to narrow after the discharge pipe until it reaches an average bed of three to four feet wide and nearly sheer banks of approximately 4 feet. The ditch is heavily vegetated along both banks with brush and large trees. The ditch is described by DHEC as having been empty but damp during previous sampling events. During a Site visit following a rain event, EPA observed water standing in the ditch at depths up to nearly twelve inches in some places. According to the U.S. Department of Agriculture National Cooperative Soil Survey, soils in the area are generally loamy sand which suggests that standing water will infiltrate to ground water between rain events.

Huckleberry Park is approximately 2.75 acres of flat grassed park with large trees interspersed. It is bordered on the east by Wilson Branch which is part of the surface water drainage corridor for the Site. Wilson Branch is approximately ten feet wide along the park with shallow banks of approximately three feet. The park has a relatively low elevation and does not drain efficiently, evidenced by observations of standing pools of water and saturated soil within the park during a Site visit by the EPA following a rain event. Within the park are three play areas, one play structure which includes a slide and two swing sets. Each play area is floored with sand and surrounded by plastic playground border systems. It was observed by both the EPA and DHEC in December, 2016, that all the swings had been removed from the swing sets and signs had been posted in the park announcing that it had been closed.

The contaminated city-owned parcel north of Long Middle School is a low-lying area along an unnamed tributary and is classified as a freshwater forested/shrub wetland. All vegetation from the parcel was removed by the City of Cheraw in 2016 but occurred prior to notification that elevated concentrations of PCBs were present. A culvert under Jersey Street would constrict storm water in the unnamed tributary from draining this parcel.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

Part 302.4 of Title 40 in the Code of Federal Regulations lists PCBs as a hazardous substance under section 102(a) of CERCLA, a toxic pollutant under section 307(a) of the CWA, and as a hazardous air pollutant under section 112 of the CAA. PCBs are also listed as a toxic chemical through section 313 of EPCRA and determined to present an unreasonable risk of

injury to health and or the environment under section 2605(e) of the Toxic Substances Control Act (TSCA).

The EPA RML for PCBs Aroclor 1248 is 23 mg/kg for residences and 95 mg/kg on industrial properties. The EPA RML for PCB Aroclor 1254 is different for a calculated Hazard Quotient (HQ) equal to 1 (1.2 mg/kg for residential soil and 15 mg/kg for industrial soil) versus a HW equal to 3 (3.5 mg/kg for residential soil and 44 mg/kg for industrial soil).

Photolysis and biodegradation are slow degradation processes for PCBs in the soil and are further limited by increased chlorination of the molecule; as a result, PCBs are inherently persistent in the environment. While both PCB Aroclors found at the Site are considered stable and persistent, Aroclor 1254, which is near the upper range of chlorine content for the family of common PCBs, will likely remain stable for an extended period of time.

5. NPL Status

The Site is not on the National Priorities List (NPL) but is currently being evaluated and scored for proposed listing to the NPL.

6. Maps, Pictures and Other Graphic Representations

Maps, pictures and other graphical representations of data are provided as attachments to this Action Memorandum.

B. Other Actions to Date

1. Previous Actions

No action has ever been initiated at the Site by any government or private entity to address and remove contaminated soils or sediments related to PCBs. In 1989, the wastewater sludge drying beds which had been operated by Burlington Industries were closed; approximately 300 cubic yards of dried sludge and soil were excavated and transported to the Chesterfield County Landfill for disposal as nonhazardous waste. Burlington Industries requested permission from DHEC in 1989 to cover the drying beds or dispose of the material as nonhazardous waste; sample analytical results were provided to demonstrate that the waste did not qualify as a RCRA toxicity characteristic hazardous waste (40 CFR § 261.24). However, no samples were analyzed for the presence of PCBs, and no information or indication was provided to DHEC that the waste stream could be contaminated with PCBs.

2. Current Actions

The City of Cheraw has closed Huckleberry Park to the public and removed some playground equipment. The city has also ceased all stormwater-related work in Wilson Branch and the upstream unnamed tributary. Impacted residents on Pecan Drive and in Sherwood Forest have been briefed and provided information on reducing exposure to contaminated soils and sediments. Highland Industries, Inc. has closed the stormwater discharge pipe from its northwest retention pond.

Discussions are on-going for the implementation of an enforcement-lead removal for the industrial portion of the Site. Additional fund-lead response actions may be necessary depending on the outcome of the negotiation.

C. State and Local Authorities' Roles

1. State and Local Actions to Date

South Carolina DHEC has conducted six sampling events at the Site to delineate the extent of PCB contamination in surface soils and sediments. Sample results were provided to property owners and DHEC representatives visited residents to inform them of protective measures that should be taken to prevent future exposure until a removal or remedial action could take place. DHEC held a public meeting on November 2, 2016, to present its findings to the surrounding community.

2. Potential for Continued State/Local Response

At a public meeting on November 2, 2016, DHEC committed to continue sampling residential yards located adjacent to the surface water corridor of the Site at the homeowners' request. DHEC anticipates fulfilling this commitment for the foreseeable future until such time as EPA initiates a removal action. However, the State of South Carolina does not presently have resources or funds available to address the most pressing response needs to the Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Sampling has shown that the Site is contaminated with PCB Aroclors 1248 and 1254 above their respective RMLs for surface soil on residential properties. PCB contaminants occur within residential yards, the Highland Industries lot, a public park and a surface water drainage corridor of 3.2 miles from the former Burlington Industries facility to the Pee Dee River.

Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) lists factors to be considered in determining the appropriateness of a removal action. Paragraphs (b)(2)(i), (iv), (v) and (vii) directly apply to the Site:

300.415(b)(2)(i): Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants.

According to samples collected by DHEC, at least six residential parcels along Pecan Drive contain PCB Aroclors 1248 or 1254 in excess of 100,000 µg/kg while three more parcels contain PCB concentrations of at least 10,000 µg/kg. One sample in a residential yard on Pecan Drive yielded PCB Aroclor 1248 and 1254 concentrations of 2,100,000 µg/kg and 1,600,000 µg/kg, respectively. PCBs were found at concentrations above 1,000 µg/kg within yards of two occupied residences of the Sherwood Forest community.

Within Huckleberry Park, PCB Aroclor 1248 was found at concentrations ranging from 5,200 µg/kg to 16,000 µg/kg under swing sets within the park. PCB Aroclor 1254 was found at concentrations ranging from 4,700 µg/kg to 13,000 µg/kg within the same samples under the swing sets. During an October sampling event, DHEC documented evidence of children in the park such as bare footprints and sand/mud that had been placed onto the park slide.

300.415(b)(2)(iv): High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

Sediments within the 1,000-foot ditch at the west boundary of the former Burlington Industries facility show a high degree of uniformity among all samples collected with concentrations of PCB Aroclors 1248 and 1254 in excess of 10,000 µg/kg. Concentrations for each PCB Aroclor exceeded 100,000 µg/kg in at least half of the samples that were collected from the ditch. At least seven downstream sediment samples in intermittent and perennial tributaries yielded PCB Aroclor concentrations in excess of 1,000 µg/kg. PCBs within ditch and creek sediments along the surface water corridor will migrate to the Pee Dee River.

300.415(b)(2)(v): Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

The surface water drainage corridor at the Site is prone to flooding, particularly in residential yards and the public park along Wilson Branch. Contaminated sediments from the ditch and/or creek may mobilize and deposit upon residential properties during flooding events.

300.415(b)(2)(vii): The availability of other appropriate federal or state response mechanisms to respond to the release.

The State of South Carolina does not currently have sufficient funding to complete a response or removal action at the Site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances and/or pollutants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

The requested funding outlined in this Action Memorandum will begin to mitigate the release or threat of release of Polychlorinated Biphenyls associated with the former Burlington Industries, Inc. operation in Cheraw, Chesterfield County, South Carolina. The scope of the removal action under this Action Memorandum addresses residential land use where

potential human health risks stem from PCB concentrations greater than 10 times the respective EPA Region 4 Removal Management Level (RML) for residential soil (i.e., Tier I). Six parcels have been identified which meet the Tier I criteria. Priority is also allocated to play areas within Huckleberry Park which exceed the EPA Region 4 RML for residential soil (i.e. Tier II). The scope of work, if approved, will include the following actions:

- Excavate surface soils and contaminated with PCBs from residential properties which meet Tier I criteria;
- Remove play units and sand from Huckleberry Park which meet Tier II criteria;
- Provide temporary staging of excavated PCB-contaminated soil/sediment between removal and disposal activities;
- Load and transport PCB-contaminated soil/sediment to an offsite location for treatment and/or disposal;
- Replace excavated soil with clean backfill and vegetation; and
- Restore impacted properties to the extent practicable.

2. Contribution to Remedial Performance

The scope of this proposed action is to address the residential parcels which have the highest concentrations of contaminants as well as the public play areas for children. At this time the six Tier I parcels will be addressed as well as the play areas within Huckleberry Park which are considered Tier II. The response actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the Site.

3. Applicable or Relevant and Appropriate Requirements (ARAR)

On-site removal actions conducted under CERCLA are required to attain ARARs, to the extent practicable, considering exigencies of the situation. Off-site removal activities must comply with all applicable federal and state laws, unless there is an emergency. This cleanup is being conducted as a removal action.

A letter to the State of South Carolina requesting identification of State ARARs was sent on January 5, 2017. An initial response from DHEC indicated the following four South Carolina State laws and regulations as State ARARS:

- Pollution Control Act [S.C. Code Ann. § 48-1]
- Storm water Management and Sediment Reduction Act [S.C. Code Ann. § 48-14]
- Solid Waste Landfills (Land clearing debris) [S.C. Code Ann. Regs. 61-107.4 and 61-107.19 App. I]
- Erosion and Sediment Reduction and Stormwater Management [S.C. Code Ann. Regs. 72-101]

Federal ARARs identified for the Site that are deemed practicable include:

- As provided in CERCLA Section 121(d)(3) and the Off-site Rule at 40 CFR § 300.440 *et seq.* the off-site transfer of any hazardous substance, pollutant, or contaminant generated during the response action will be sent to a treatment, storage, or disposal facility that is in compliance with applicable federal and state laws and has been approved by the EPA for acceptance of CERCLA waste.
- Wastes that are transferred off-site or transported in commerce along public right-of-ways will meet the Hazardous Materials Regulations requirements at 49 CFR part 171-180.
- Wastes containing PCBs will meet applicable remediation, sampling, transportation and disposal requirements specified under Toxic Substances Control Act (15 U.S.C. §2601 *et seq.*) regulations 40 CFR Part 761 Subparts D, K, N, and R. The removal action will be conducted under CERCLA authority and is therefore not subject to *self-implementing* cleanup procedures under TSCA. This action memorandum will be considered to have met the *Risk-based disposal approval* notification and approval requirements under 40 CFR § 761.61(b).
- Some wastes containing PCBs may be subject to RCRA land disposal restrictions at treatment standards (40 CFR § 268) if PCB concentrations exceed RCRA land disposal permit limits of 1000 mg/kg for halogenated organic compounds (42 U.S.C. § 6924(d)(2)(E)).

ARARs include only federal and state environmental or facility siting laws/regulations and do not include occupational safety or worker protection requirements. Compliance with OSHA standards is required by 40 CFR § 400.400(e)(1) & (2). On-Site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action. Response actions conducted on-site must comply with the substantive but not administrative requirements of ARARs. Off-site activities such as transportation and disposal of wastes are required to comply with all applicable requirements, including the administrative portions.

4. Projected Schedule

Initial cost estimates project that removal activities at the Site will require an uninterrupted period of approximately two weeks to accomplish the proposed activities listed in section V.A.1; however, a period of performance in the amount of six months will be necessary to accommodate sufficient pre-mobilization planning, delays, and closure procedures which will follow removal activities.

B. Estimated Costs

| Extramural Costs: | Proposed Ceiling: |
|--|--------------------------|
| <u>Regional Allowance Costs:</u> | |
| ERRS | \$ 894,000 |
| <u>Other Extramural Costs Not Funded from the Regional Allowance:</u> | |
| START | \$ 51,000 |
| USCG GST | \$ 0 |
| EPA ERT | \$ 0 |
| CLP | \$ 2,000 |
| <u>Subtotal Extramural Costs:</u> | |
| Extramural Costs Contingency (20%) | \$ 189,400 |
| TOTAL REMOVAL ACTION PROJECT CEILING: | \$ 1,136,400 |

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Actual or threatened releases of hazardous substances from this Site, if not addressed by the response action selected in this Action Memorandum, present an imminent and substantial endangerment to public health, welfare, and the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

Enforcement activities for the industrial portion of the Site have been initiated and are ongoing. The scope of this requested response is limited to the higher tiered residential property. Please see the attached Enforcement Addendum (Enforcement Sensitive) for further information regarding enforcement activities.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$1,650,735 using the following formula: (Total Extramural Costs) + (45.26% x (Total Extramural Costs + Total Intramural Costs)) or (\$1,136,400 + (45.26% x (\$1,136,400)))⁷.

⁷ Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of the site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create

IX. RECOMMENDATION

This decision document represents the selected removal action for the Burlington Industries Cheraw Site in Cheraw, Chesterfield, South Carolina developed in accordance with CERCLA as amended and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP Section 300.415(b) criteria for a removal action. I recommend your approval for the proposed action. The total projected ceiling, if approved, will be \$1,136,400, of which an estimated \$894,000 comes from the Regional Removal Allowance.

APPROVED: _____

Franklin E. Hill, Director
Superfund Division

DATE: _____

4/25/17

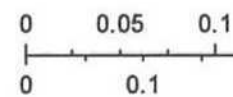
DISAPPROVED: _____

Franklin E. Hill, Director
Superfund Division

DATE: _____

Attachments

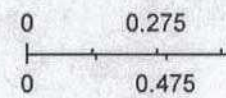
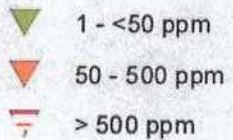
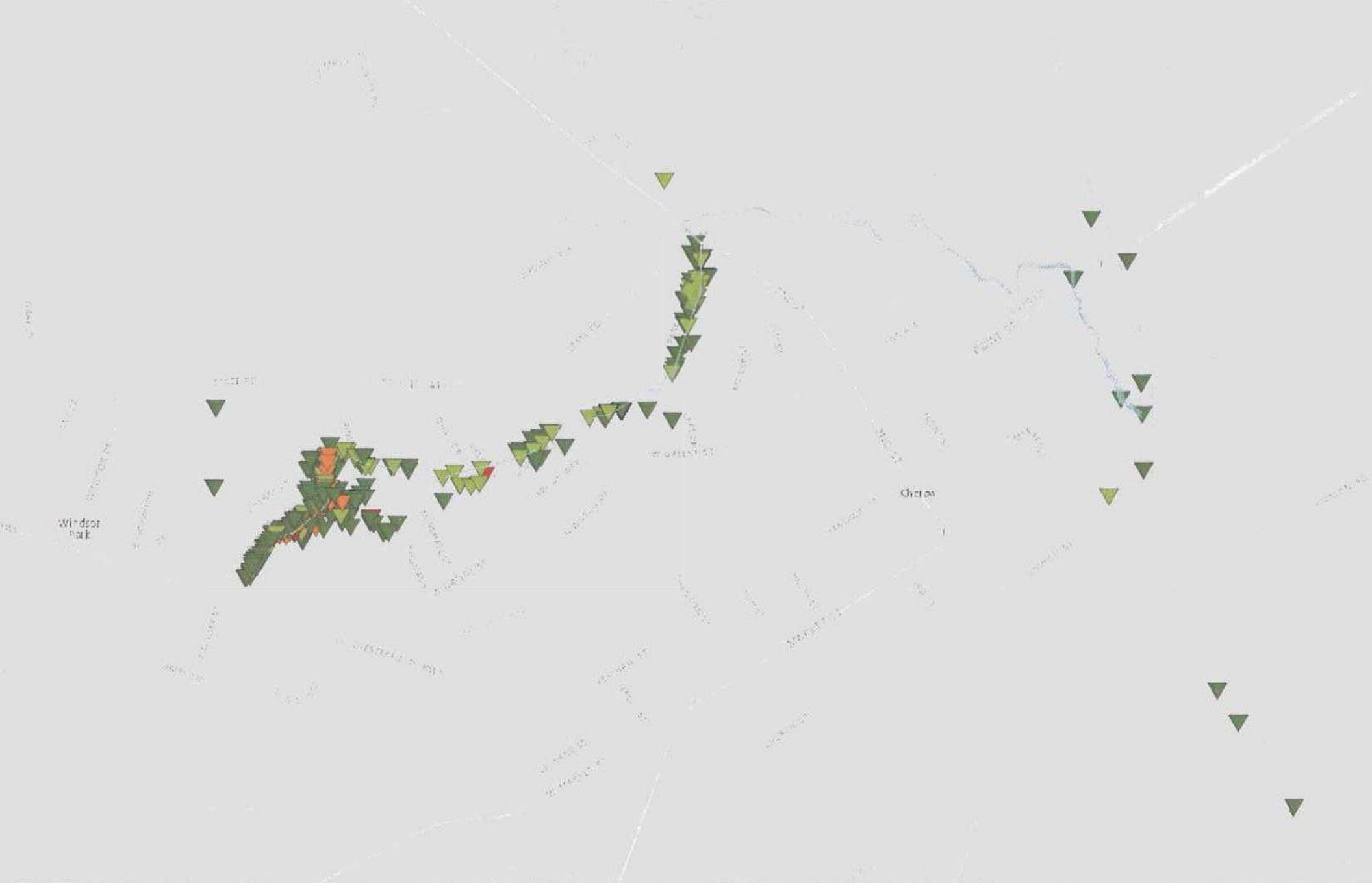
any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

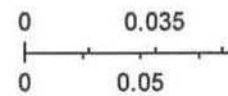
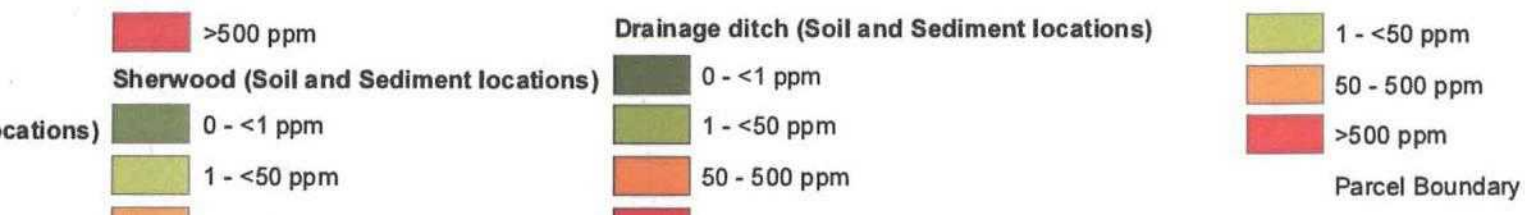


Boundary

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Esri, HERE, DeLorme, Mapbox, Microsoft, Swatch, CNES/Airbus DS, USDA, NOAA, IGN, EBC, Esri, HERE, DeLorme, Mapbox, Microsoft, Swatch, CNES/Airbus DS, USDA, NOAA, IGN, EBC

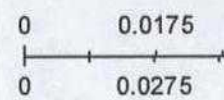
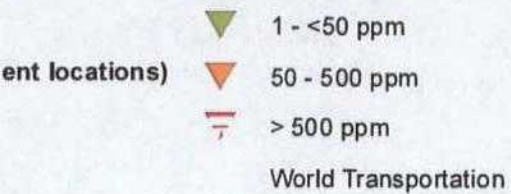






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CNES/Airbus DS, USDA



US EPA Region IV
Esri, HERE, DeLorme, N
Source: Esri, Digit

Attachment 2
Enforcement Addendum

(b)(7)(A) Enforcement Confidential

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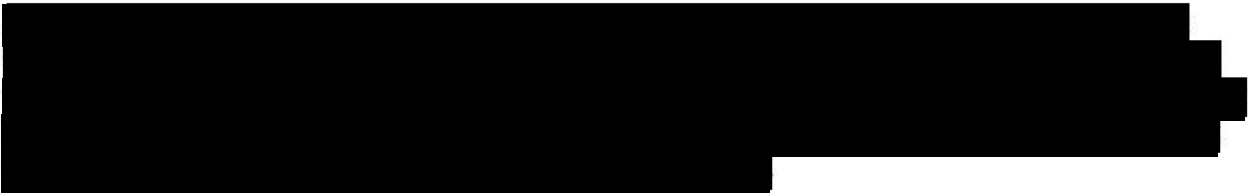
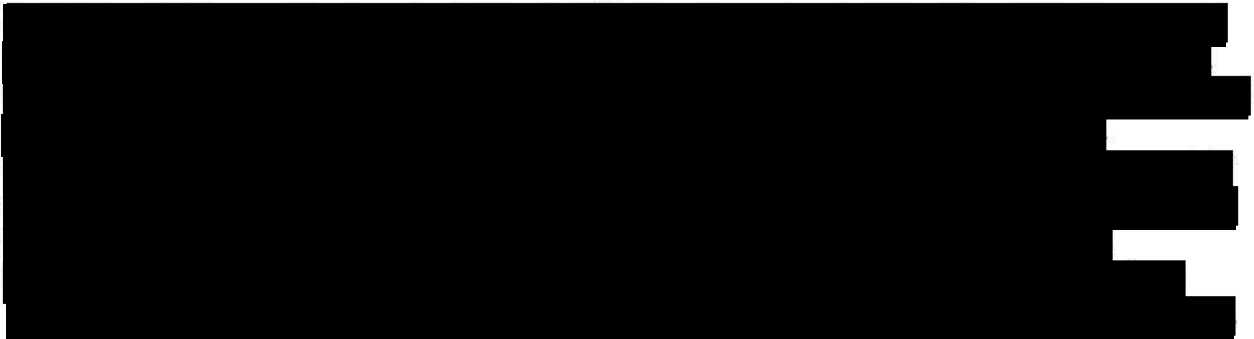
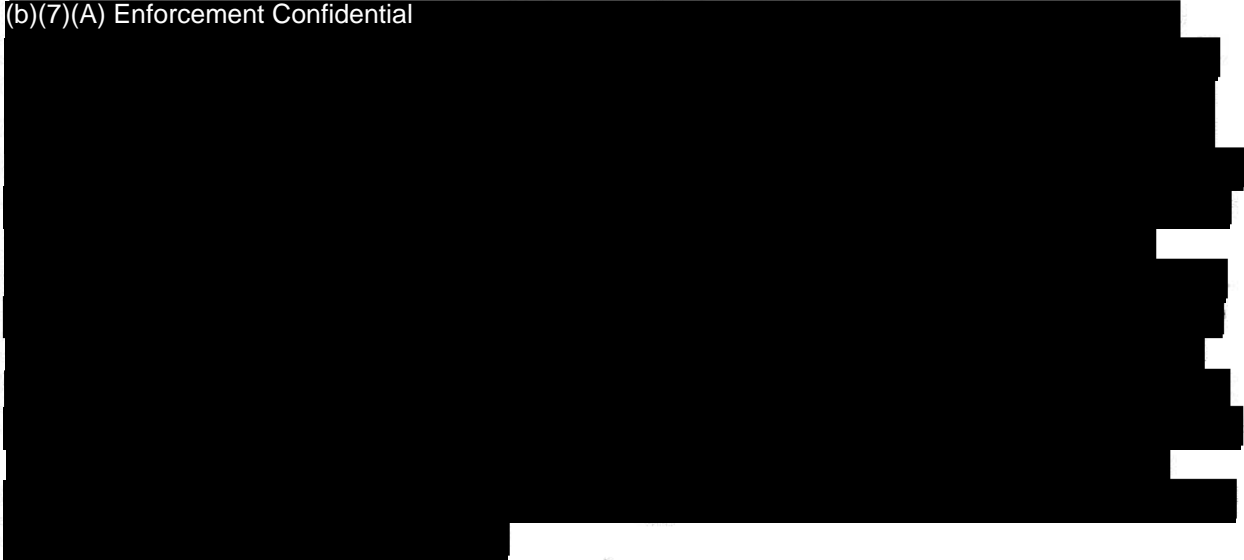
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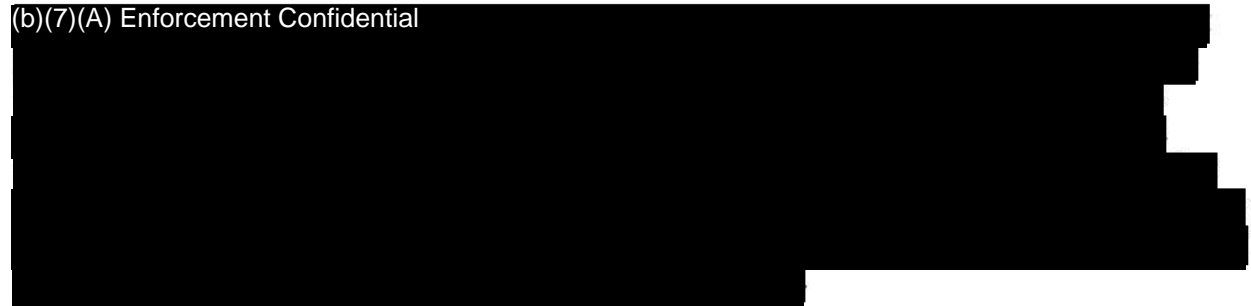
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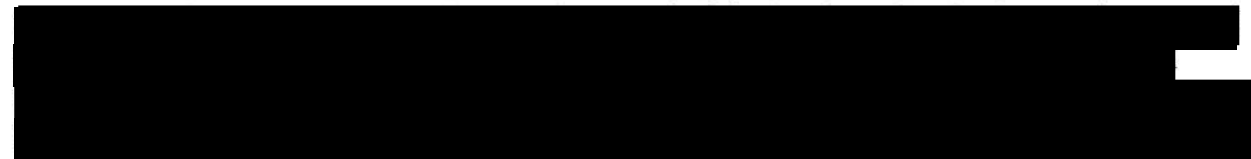
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South Carolina

2016

fish consumption

advisories

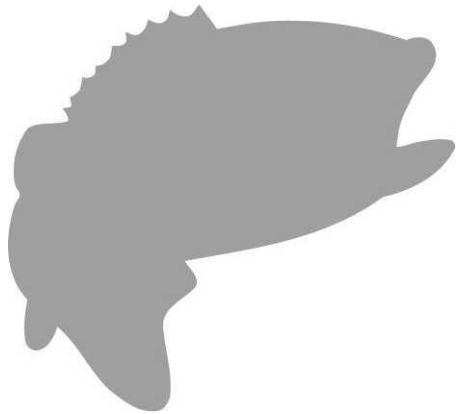
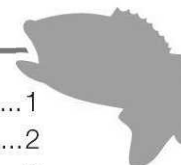


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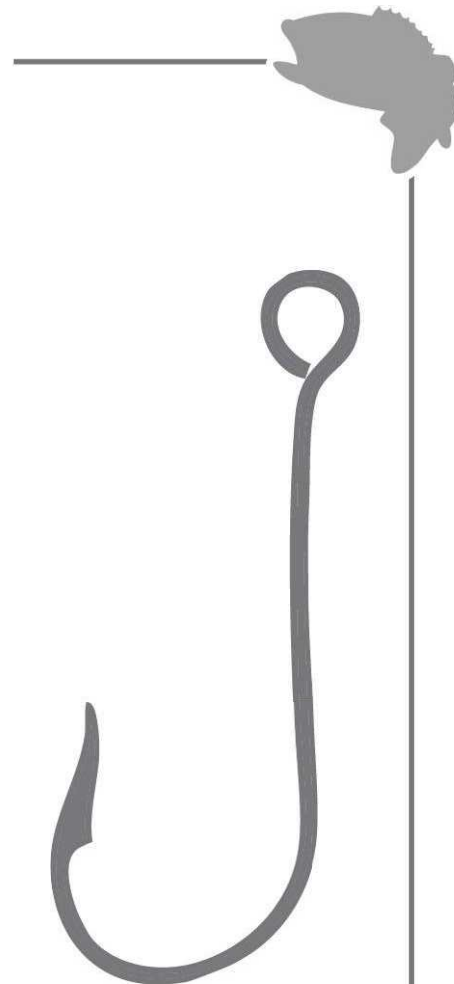
Fish Smart! Eat Smart!

It's for your health.

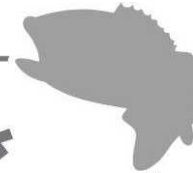
Fishing is a fun, relaxing outdoor activity, and fish are a good source of protein, vitamins and minerals. **Whether you are fishing to enjoy the outdoors, spend time with family, or catch dinner, you should always be safe about the fish you eat.** The South Carolina Department of Health and Environmental Control (DHEC) is working to help you fish smart and eat smart.

Some fish caught in South Carolina may not be safe to eat because they contain harmful levels of some chemicals.

This does not mean that you have to stop eating fish. The advisories in this booklet tell you where you should limit the amount of fish you eat. The advisories also tell you where it is safe to eat as much fish as you like.



Statewide Advice for _____ At-Risk Women and Children*



These at-risk groups should follow the advice listed below. All other groups should follow the advice given in the advisory tables.

Advice for at-risk groups:

- Eat only one meal a week of freshwater fish caught from a waterbody without an advisory.
- Do NOT eat any freshwater fish from waterbodies with an advisory (includes those listed in this booklet with an advisory for one meal a week, one meal a month, and do not eat any).
- Do NOT eat any king mackerel, shark, swordfish, tilefish, or cobia.

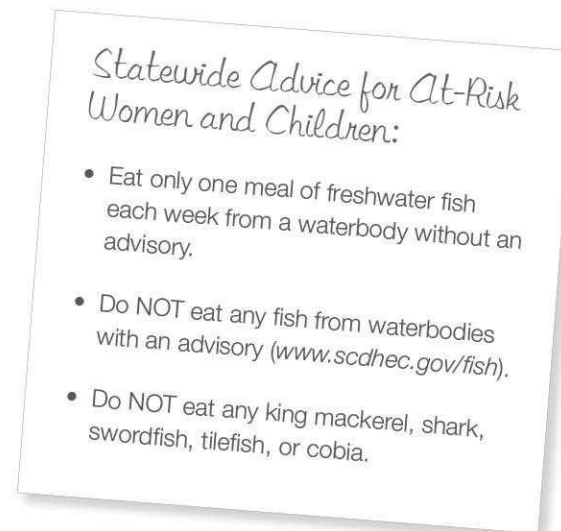
*These at-risk groups include:

- Babies
- Children under 14
- Women who are nursing
- Women who are pregnant
- Women who plan to become pregnant

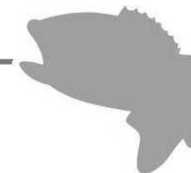
Why are these groups at a greater risk?

- Because their bodies, brains and nervous systems are still developing, infants and small children are at a greater risk.
- Contaminants, like mercury, can build up in our bodies if too much are being consumed.
- Health problems can occur when there are too many harmful chemicals in the body.

To find out more, visit the Environmental Protection Agency's website at www.epa.gov/ost/fish or go to the Food and Drug Administration's website at www.fda.gov/Food/FoodborneIllnessContaminants/BuyStoreServeSafeFood/ucm110591.htm



FAQs About Smart Fishing and Your Health



Why should I eat fish?

- It's low in fat and contains omega-3 fatty acids (which boosts heart health)
- It's a great source of protein, vitamins, and minerals
- Eating fish regularly can reduce your chances of having a stroke or heart attack
- *To get all the benefits, you should eat fish at least two meals each week, but remember to choose the right types of fish to eat*
- **NOTE: Breeding and frying fish may decrease health benefits**

What is an advisory?

- An advisory will list a lake, stream, or river in South Carolina. Then, it will tell you the **type of fish** and the **amount of fish** that is safe to eat from that waterbody.
- **If a waterbody or type of fish is not listed in the tables, it means that DHEC has not issued any consumption advice.**
- Here are the reasons why DHEC may not issue an advisory:
 - ✦ The waterbody may not have been sampled.
 - ✦ There may not be enough data.
 - ✦ The waterbody is privately owned.
- Advisories help you decide:
 - ✦ Where to fish
 - ✦ Which fish to keep
 - ✦ How much fish to eat
- **No Advisories** – some lakes, streams, and rivers in South Carolina that have been tested do not have advisories. These are listed in boxes at the end of each regional section (Pages 15, 27, and 32).

DON'T FORGET:

You will need a valid South Carolina fishing license to fish in any public lakes, rivers, and streams, including all of the waterbodies listed in this booklet.



How does DHEC determine if a waterbody should have an advisory?

- DHEC tests fish from South Carolina's lakes, rivers, streams, estuaries, and offshore waters. Saltwater fish samples are collected by the South Carolina Department of Natural Resources (DNR) and DHEC.
- All samples are tested for chemicals to see if any of the fish are contaminated.
- DHEC looks closely at the data, then issues fish consumption advisories where contaminated fish have been found.

Why do we have advisories?

DHEC issues advisories to help you understand if the fish you catch are safe to eat.

Are fish consumption advisories only issued in South Carolina?

South Carolina is not alone. All states issue fish consumption advisories. To look at other states' advisories, go to <http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/general.cfm#tabs-4>.

Why are some fish not safe to eat?



Harmful chemicals are released into the environment through emissions, burning of trash, etc.



These contaminants fall to earth when it rains and are washed into lakes, rivers and streams.



When you eat these fish, the contaminants may get into your body, too.

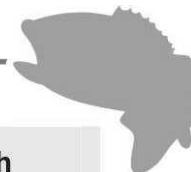


Contaminants get into fish through the plants and animals they eat.



General yardstick:

Older and larger fish have eaten more and have been in the water longer, so there may be more contaminants in their bodies.



What are the main contaminants in South Carolina water bodies?

- Mercury
- PCBs
- Radioisotopes (found in the Savannah River in very small amounts)

What do I need to know about mercury?

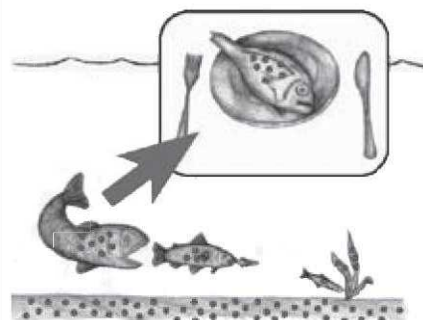
- Mercury in the environment comes from natural sources and from pollution.
- The largest sources of pollution stem from decades of burning fossil fuel (like coal) and waste.
- Mercury builds up in the tissue or muscle of the fish (the part that we eat).
- It can also build up in *our* tissues when we eat fish contaminated with mercury.
- The risk is only in eating the fish, which means you can still enjoy water activities like swimming, boating, and other water recreation.
- Our risk from mercury depends on how much and how often we eat certain types of fish.
- Mercury in fish is an issue for the whole nation, not just South Carolina.

Health notes for adults:

- Too much consumption of fish with high levels of mercury may lead to heart disease in adults.
- Health effects of mercury in adults can usually be corrected if a person stops eating fish that contain high levels of mercury.
- If you are concerned about the amount of mercury in your body, see your doctor.

South Carolina's Fish Consumption Advisories are mostly due to mercury. To learn more about mercury, visit www.scdhec.gov/mercury

How Mercury Ends Up On Your Plate



Dots represent mercury.

Illustration by Erin Brodel Courtesy of NJ Department of Environmental Protection



What do I need to know about PCBs?

- PCB stands for polychlorinated biphenyls.
- They are man-made compounds that were banned in 1976.
- PCBs were often used as fluids for electrical transformers and products like cutting oils and carbonless copy paper.
- They remain a problem today because they do not break down easily in the environment.
- PCBs build up over time in the fatty parts of the fish.
- PCBs can also build up in our bodies.
- By cleaning or cooking fish to reduce fat, you can reduce the amount of PCBs you eat.
- See Page 10 for tips on how to clean and cook fish to reduce PCBs.
- You should still follow the advice of this book even if you clean and cook the fish the right way.

What are the health effects of PCBs in my body?

If pregnant women eat fish containing PCBs, their babies may suffer from:

- Lower birth weight
- Smaller infant head size
- Premature births
- Developmental problems and learning disabilities

What do I need to know about radioisotopes?

- Radioisotopes are radioactive forms of an element.
- They occur naturally or can be man-made.
- Some fish found in the Savannah River may contain radioisotopes, cesium-137 and strontium-90.
- Levels of radioisotopes found in these fish in South Carolina are low and have decreased over time.
- If you follow the fish advisory advice for the Savannah River, **the added health risk from these elements is very low.**

Smart Fishing Tip: Catch and Release

If you want to enjoy the fun of fishing, but don't want the health risks from eating contaminated fish, catch and release fishing is an option. Catch and release lets you have the experience of fishing without killing fish. When you catch and release, follow these guidelines:

- Release fish quickly-while it is still in the water, if possible. Be sure you have the necessary tools (needlenose pliers) nearby.
- When a hook gets caught deep inside a fish, do not tear out the hook. Instead, cut the leader or the line and leave the hook in the fish. This will increase the chance that the fish lives.
- **Do not play the fish to exhaustion**, particularly if water temperatures are very high.

For more information about catch and release, visit www.dnr.sc.gov or read the South Carolina Rules and Regulations for Fishing, Hunting, and Wildlife Management Areas, available wherever fishing licenses are sold.

How can I reduce the health risks from contaminated fish?

You can reduce the health risks from any type of fish by following these tips:

- Do not eat more fish than the advisory recommends.
- Eat fish from lakes and rivers that do not have advisories.
- Keep and eat the smaller fish and let the bigger ones go.
- Eat different types of fish instead of just one type.
- Clean and cook your fish the right way (this helps reduce PCBs).
- Enjoy fishing by catching and releasing fish instead of eating them.



What do I need to know about shellfish in South Carolina to stay safe?

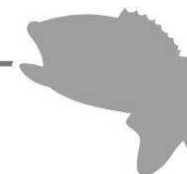
- DHEC regularly tests the salt waters containing shellfish beds for bacteria.
- If health standards are not met, or if conditions have changed to make the shellfish unsafe, DHEC will close the shellfish bed.
- A closed shellfish bed means that it is unsafe to eat and illegal to collect the shellfish in that area.
- Testing ensures that the oysters, clams and mussels you collect and eat in S.C. salt waters are safe.

Need More Info?

- For more information on DHEC's Shellfish program, visit www.scdhec.gov/shellfish.
- For shellfish closure updates, call 1-800-285-1618.

What about fish that I buy instead of catch?

- The FDA and the EPA have issued a national mercury advisory for fish that you buy.
- The advisory includes fresh, frozen and canned fish that you buy at a store or restaurant.
- EPA and FDA advise for women and children in the at-risk group to:
 - ✦ Not eat shark, swordfish, king mackerel, tilefish, or cobia.
 - ✦ Eat up to 12 ounces (two average meals) a week of a variety of fish and shellfish that are lower in mercury.
 - ✦ Check local advisories in your state for fish caught by family and friends.
- Follow the same advice when feeding fish and shellfish to young children, only serve them a smaller portion.



Need more info about store-bought fish?

- Visit the FDA's website at: www.fda.gov/Food/ResourcesForYou/Consumers/ucm077331.htm
- Or call the FDA's toll-free information line at 1-888-SAFEFOOD
- Visit the EPA's website at: www.epa.gov/ost/fish

Does DHEC post signs on waterbodies that have fish consumption advisories?

- **Yes**, DHEC does post signs on the public boat landings that serve as access points to the waterbody under advisory.

What if a waterbody does not have a sign at its access point?

Here are reasons why there may not be a sign at the access point to a waterbody:






- There is no advisory
- The waterbody has not been tested
- The sign has been vandalized or damaged

Always refer to DHEC's Fish Consumption Advisory website (www.scdhec.gov/fish) or this booklet for the most accurate information on whether a waterbody is under advisory.

Where can I get more information about topics discussed in this booklet?

- For the S.C. Fish Consumption Advisory website, go to www.scdhec.gov/fish
- You can also call DHEC's toll-free number at 1-888-849-7241
- To learn more about mercury, visit www.scdhec.gov/mercury
- For more information on fishing and South Carolina's rules and regulations for fishing and boating, visit DNR's website at www.dnr.sc.gov
- Visit <http://dnr.sc.gov/aquaticed/> for information on a free fishing program for kids

EDISTO RIVER:
ENTIRE RIVER TO WILLTOWN BLUFF

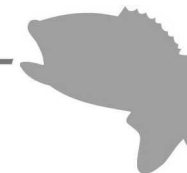
| 1 Meal a Week 1 Comida a la Semana | 1 Meal a Month 1 Comida al Mes | DO NOT EAT ANY NO COMA NADA |
|--|---|--|
|  Some Pan Fish/Bream (Stripling, Rock Bass and Rock Basslet), Sunfish, Warmouth, Black Crappie |  Blue Catfish |  Channel Catfish  Flathead Catfish  Pickeral  Largemouth Bass  Bowfin (Mudfish) |

If a type of fish is not listed above, it means that there may not be enough data to provide advice or that there are no restrictions. For more information call 1-888-849-7241 or go to <http://www.scdhec.gov/fish>.
Si un tipo de pez no está listado arriba, esto quiere decir que no hay suficiente información para dar consejos o que no hay restricciones. Para más información llame al 1-888-849-7241 o vaya a <http://www.scdhec.gov/fish>.

DHEC

Fish Smart! Eat Smart!

Understanding the Advisories



How to find an advisory

- **Search by region**

- ✦ The map of South Carolina is divided into five sections. (See Page 11.)
- ✦ The waterbodies are listed in alphabetical order within each section.
- ✦ Find your waterbody of interest and follow the consumption advice related to various species of fish.

- **Search by waterbody**

- ✦ If you have a specific waterbody you are looking for, go to Page 37 for a complete index of waterbodies.

Eating fish from waterbodies under advisory**

***See Page 2 - Additional Advice for At-Risk Women and Children*

- **Portion sizes**

- ✦ Advisories are based on one meal of fish
- ✦ One meal of fish = one-half pound or eight ounces of raw fish
- ✦ Eight ounces of raw fish = about the size of two decks of playing cards

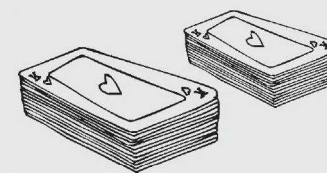
- **Spacing your consumption**

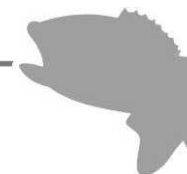
When eating fish from waterbodies under advisory, you should space out your meals based on the advice given.

- ✦ **One meal a week** = you may eat eight ounces of fish once in that week
- ✦ **One meal a month** = you may eat eight ounces of fish once in that month
- ✦ **No Restrictions** = this means that you can eat that type of fish in that waterbody as often as you like

What does one meal of fish look like?

Eight ounces of raw
fish is about the size
of two decks of cards.





- **Example**

- ✦ Blue catfish in the Edisto River have an advisory for one meal per month.
- ✦ So if you eat a meal of blue catfish from the Edisto River, you should not eat any more fish under a mercury advisory for the rest of that month.

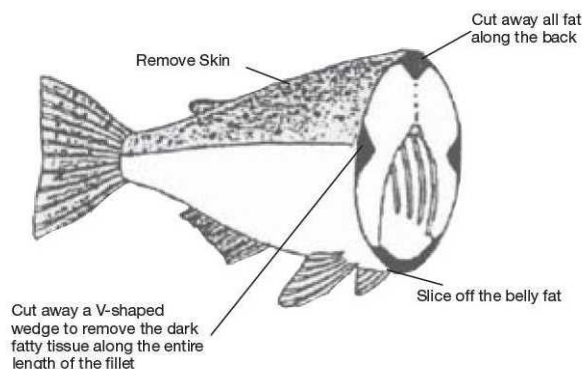
- **More clarification...**

- ✦ This includes: other fish from the Edisto River as well as anywhere else with an advisory.
- ✦ Bluegill and black crappie from the Edisto River, largemouth bass from Lake Jocassee and bowfin (mudfish) in the Congaree River all have advisories. To follow the advice correctly, you would not eat any of these fish in the same month that you ate the blue catfish from the Edisto River.

Cleaning and cooking fish to reduce PCBs

You can reduce your exposure to PCBs by the way you prepare the fish. PCBs are found in the fatty parts of fish. By cleaning or cooking fish to reduce fat, you can also reduce the amount of contaminants you eat.

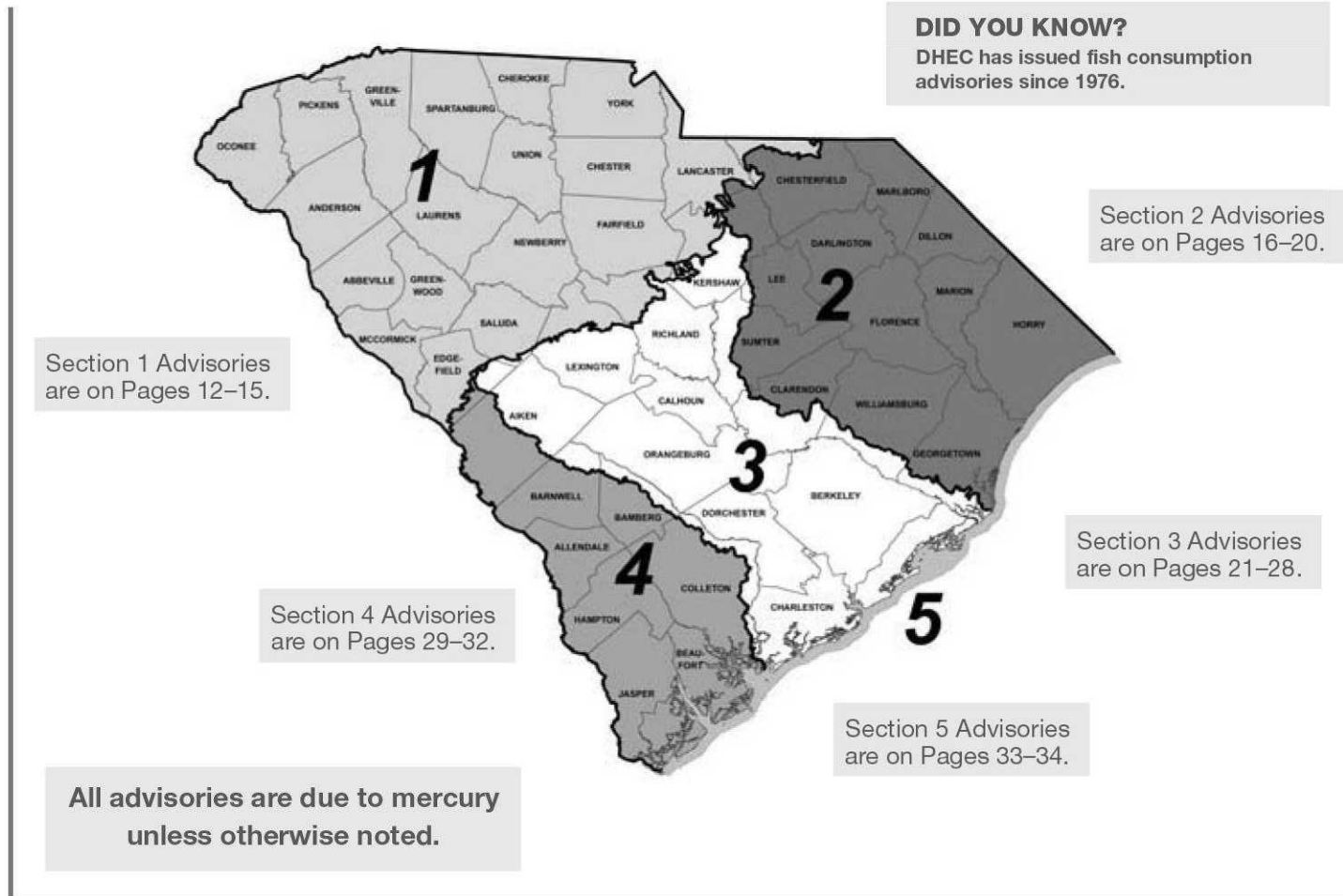
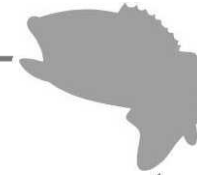
- **Remove the head and all the guts.**
- **Remove the skin and trim all fat from the areas shown in the picture.**
- **Don't panfry or deep fry. Broil, bake, poach, or boil your fish so the fatty juices drip away.**
- **Don't eat or use any of the cooking liquids.**



How You Can Reduce PCBs When Consuming Contaminated Fish

- ☑ Eat leaner fish such as yellow perch, sunfish and crappie.
- ☑ Follow the directions for properly cleaning and cooking fish.
- ☑ Eat smaller fish.

South Carolina Fish Consumption Advisories



DID YOU KNOW?

DHEC has issued fish consumption advisories since 1976.

Section 1 Advisories are on Pages 12–15.

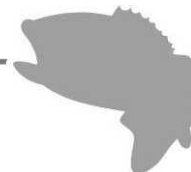
Section 2 Advisories are on Pages 16–20.

Section 3 Advisories are on Pages 21–28.

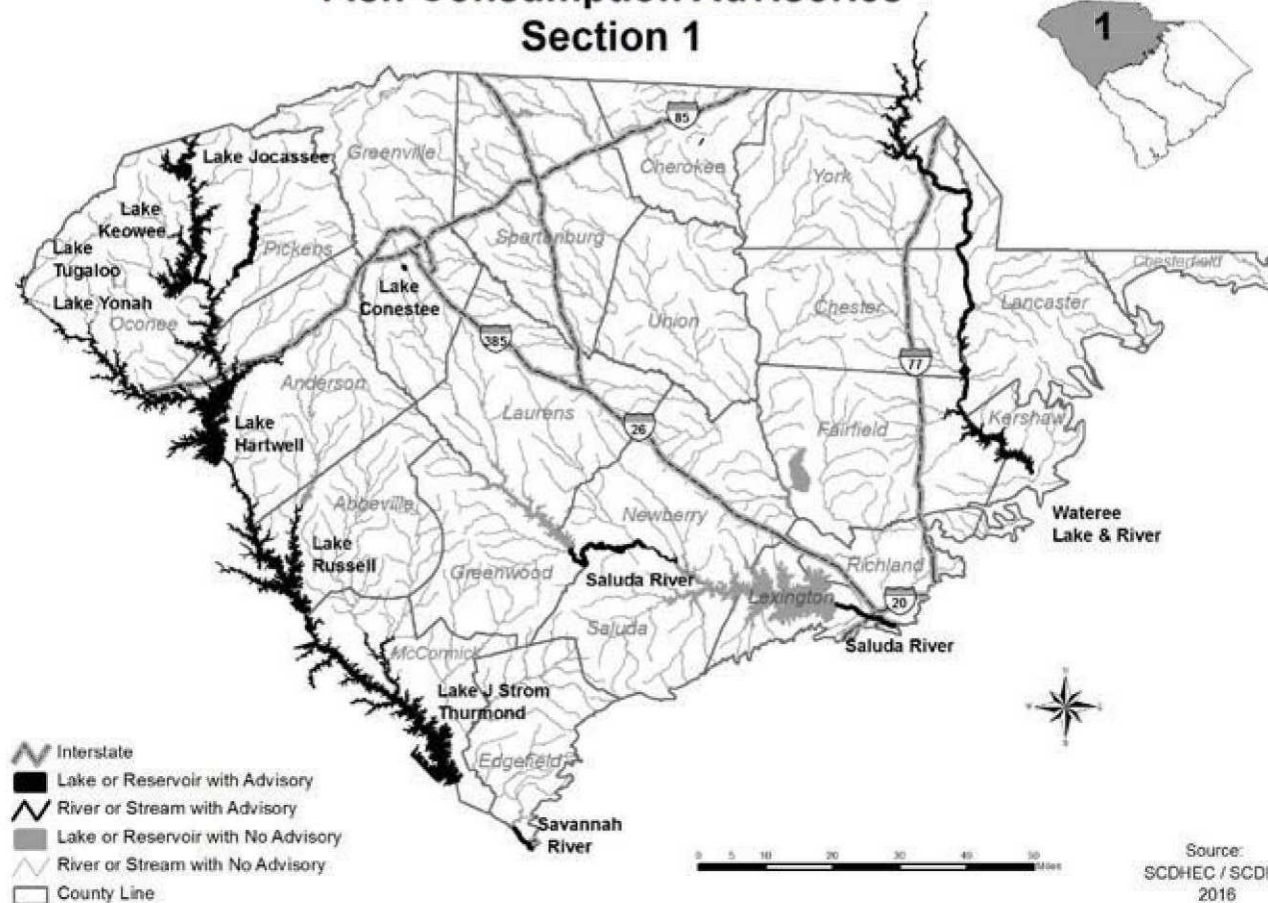
Section 4 Advisories are on Pages 29–32.

Section 5 Advisories are on Pages 33–34.

All advisories are due to mercury unless otherwise noted.



South Carolina Fish Consumption Advisories Section 1



Section 1: Waterbodies with Advisories



- For additional advice for at-risk women and children—see Page 2
- If a waterbody or fish is not listed—see Page 3

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|--------------------------------|---|---|-----------------|
| Catawba River | *PCB Advisory Entire River | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| Cedar Creek Reservoir | *PCB Advisory Entire Lake | Black Crappie | 1 meal a month |
| | | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| Fishing Creek Reservoir | *PCB Advisory Entire Lake | Black Crappie | 1 meal a month |
| | | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| Lake Conestee | Impounded portions only (fish contain both mercury and chlordane) | Largemouth Bass | DO NOT EAT ANY |
| | | Redear Sunfish | DO NOT EAT ANY |
| Lake Hartwell PCB Advisory* | 12 Mile Creek | All Species of Fish | DO NOT EAT ANY |
| | Seneca River Arm | All Species of Fish | DO NOT EAT ANY |
| | All remaining waters High levels of Mercury have also been found in Largemouth Bass and Spotted Bass | Hybrid Bass/Striped Bass | DO NOT EAT ANY |
| | | Channel Catfish | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Spotted Bass | 1 meal a month |
| | State of Georgia advisory for Lake Hartwell (Tugaloo Arm) For more information on GA fish advisories, call the GA Department of Natural Resources (DNR) at (404) 463-4929. | Hybrid/Striped Bass over 16 inches | DO NOT EAT ANY |
| | | Channel Catfish over 16 inches | 1 meal a month |
| | | Hybrid/Striped Bass 12-16 inches | 1 meal a month |
| | | Largemouth Bass over 16 inches | 1 meal a month |
| | | Largemouth Bass less than 16 inches | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Channel Catfish less than 16 inches | No Restrictions |
| | | Hybrid/Striped Bass less than 12 inches | No Restrictions |
| Lake Jocassee | Entire Lake | Largemouth Bass | 1 meal a week |
| | | Spotted Bass | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Brown Trout | No Restrictions |
| | | Rainbow Trout | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Smallmouth Bass | No Restrictions |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---|------------------------------|-------------------|-----------------|
| Lake Keowee | Entire Lake | Largemouth Bass | 1 meal a week |
| | | Spotted Bass | 1 meal a week |
| Lake Russell | Entire Lake | Largemouth Bass | 1 meal a week |
| | | Spotted Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Lake J. Strom Thurmond (Clarks Hill Lake) | Entire Lake | Largemouth bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Channel catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Lake Tugaloo | Entire Lake | Largemouth Bass | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | White Catfish | No Restrictions |
| | | Yellow Perch | No Restrictions |
| Lake Wateree | *PCB Advisory Entire Lake | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Striped Bass | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| Lake Wylie | *PCB Advisory Entire Lake | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| Lake Yonah | Entire Lake | Largemouth Bass | 1 meal a month |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Yellow Perch | No Restrictions |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

All advisories are due to mercury unless otherwise noted.

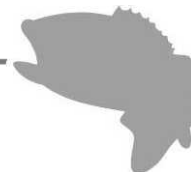
| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---|---|---------------------|-----------------|
| Saluda River | From Lake Greenwood Dam to the Congaree River in Columbia (does not include Lake Murray) | Bowfin (Mudfish) | 1 meal a month |
| | | Bluegill | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | White Bass | No Restrictions |
| Savannah River <i>Some data for the Savannah River was provided by the GA DNR.</i> <i>Some fish also contain cesium-137 and strontium-90. See Page 6 to learn more.</i> | From Lake J. Strom Thurmond to Stevens Creek | All Species of Fish | No Restrictions |
| | From Stevens Creek in Edgefield County to S.C. Hwy. 119 in Jasper County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | 1 meal a month |
| | | Chain Pickerel | 1 meal a week |
| | | Spotted Sucker | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | Yellow Perch | No Restrictions |
| Wateree River | *PCB and Mercury Advisory Entire River (Downstream of Lake Wateree to the Congaree River) | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Flathead Catfish | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

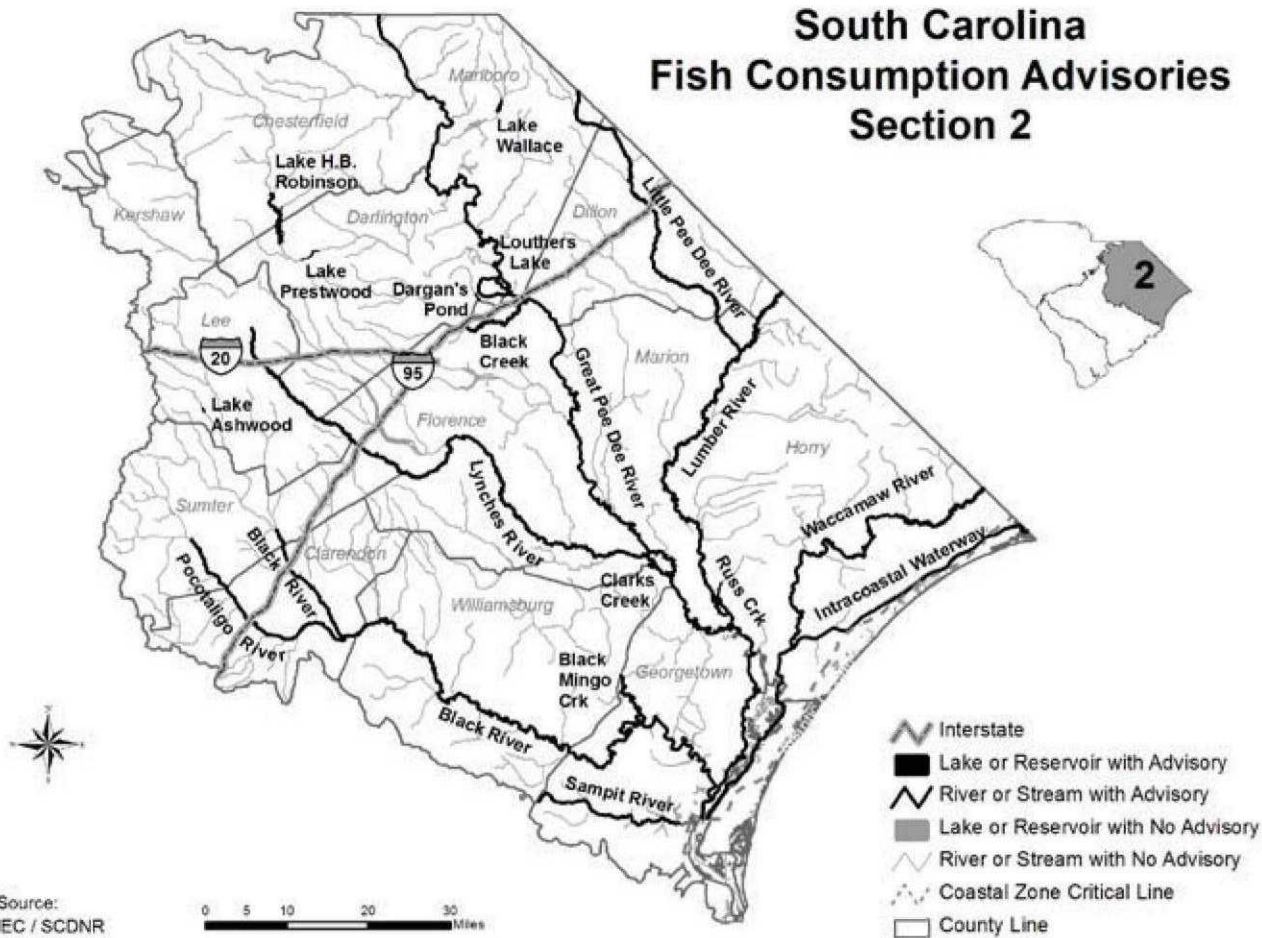
All advisories are due to mercury unless otherwise noted.

NO ADVISORIES (eat as many fish as you like from the following waterbodies)

- Broad River
- Broadway Lake
- Lake Blalock
- Lake Bowen
- Lake Cherokee
- Lake Cooley
- Lake Cunningham
- Lake Greenwood
- Lake J.A. Robinson
(Greenville County)
- Lake John D. Long
- Lake Monticello
- Lake Monticello Sub-Impoundment
- Lake Murray
- Lake Oliphant
- Lake Rabon
- Lake Secession
- Lake Thicketty
- Lancaster Reservoir
- Little River
- Middle Tyger River
- Mountain Lake 1
- Mountain Lake 2
- North Tyger River
- Parr Reservoir
- Star Fort Pond
- Sunrise Lake



South Carolina Fish Consumption Advisories Section 2



Section 2: Waterbodies with Advisories



- For additional advice for at-risk women and children—see Page 2
- If a waterbody or fish is not listed—see Page 3
- For estuarine and marine waters advisories—see Page 34

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---------------------|---|---------------------|-----------------|
| Black Creek | Entire Creek (Florence County) | Bowfin (Mudfish) | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Channel Catfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| Black Mingo Creek | Entire Creek (Georgetown County) | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | 1 meal a month |
| | | Bluegill | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Black River | Entire River | Largemouth Bass | DO NOT EAT ANY |
| | | Bowfin (Mudfish) | 1 meal a month |
| | | Chain Pickerel | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| | | Blue Catfish | 1 meal a week |
| | | Bluegill | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Warmouth | 1 meal a week |
| Clarks Creek | Williamsburg County | All Species of Fish | 1 meal a month |
| Dargan's Pond | Darlington County | Largemouth Bass | 1 meal a week |
| Great Pee Dee River | *PCB and Mercury Advisory From N.C./S.C. Border to I-95 in Dillon County | Blue Catfish | 1 meal a month |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | Mercury Advisory From I-95 to Winyah Bay | Bowfin (Mudfish) | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Redear Sunfish | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | | |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

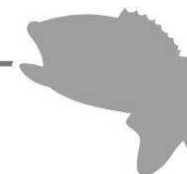
All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|-----------------------|---|------------------|------------------|
| Intracoastal Waterway | Horry County | Bowfin (Mudfish) | 1 meal a month |
| | | Bluegill | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| Lake Ashwood | Lee County | Largemouth Bass | 1 meal a week |
| Lake H.B. Robinson | Entire Lake | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | 1 meal a month |
| | | Bluegill | 1 meal a week |
| | | Chain Pickerel | 1 meal a week |
| | | Warmouth | 1 meal a week |
| | | Redear Sunfish | No Restrictions |
| Lake Prestwood | Entire Lake | Largemouth Bass | 1 meal a week |
| | | Bowfin (Mudfish) | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Lake Wallace | Diversion Lake | Bowfin (Mudfish) | DO NOT EAT ANY |
| | Fishing Lake | Largemouth Bass | 1 meal per month |
| | | Largemouth Bass | 1 meal per week |
| | | Channel Catfish | No Restrictions |
| Little Pee Dee River | From N.C./S.C. State Line to the Great Pee Dee River | Blue Catfish | DO NOT EAT ANY |
| | | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Flathead Catfish | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | All Other Fish | 1 meal a week |
| Louthers Lake | Entire Lake | Bowfin (Mudfish) | 1 meal a month |
| | | Largemouth Bass | 1 meal a week |
| | | Bluegill | No Restrictions |
| Lumber River | From N.C./S.C. State Line to the Little Pee Dee River | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Channel Catfish | DO NOT EAT ANY |
| | | Flathead Catfish | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Bluegill | 1 meal a month |
| | | Chain Pickerel | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|------------------|--|---------------------|-----------------|
| Lynches River | From U.S. Hwy. 15 to the Great Pee Dee River | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Channel Catfish | DO NOT EAT ANY |
| | | Chain Pickerel | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Redear Sunfish | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| Pocotaligo River | Entire River (From Sumter to the Black River) | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | All Other Fish | 1 meal a week |
| Russ Creek | Marion County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | 1 meal a month |
| | | Redear Sunfish | 1 meal a week |
| Sampit River | Georgetown County | Bowfin (Mudfish) | 1 meal a month |
| | | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill Sunfish | No Restrictions |
| | | Mullet | No Restrictions |
| | | Pumpkinseed Sunfish | No Restrictions |
| | | White Perch | No Restrictions |
| Waccamaw River | From the N.C./S.C. State Line to U.S. Hwy 17 | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Chain Pickerel | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| | | Blue Catfish | 1 meal a week |
| | | Bluegill | 1 meal a week |
| | | Channel Catfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Warmouth | 1 meal a week |

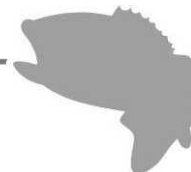
All advisories are due to mercury unless otherwise noted.



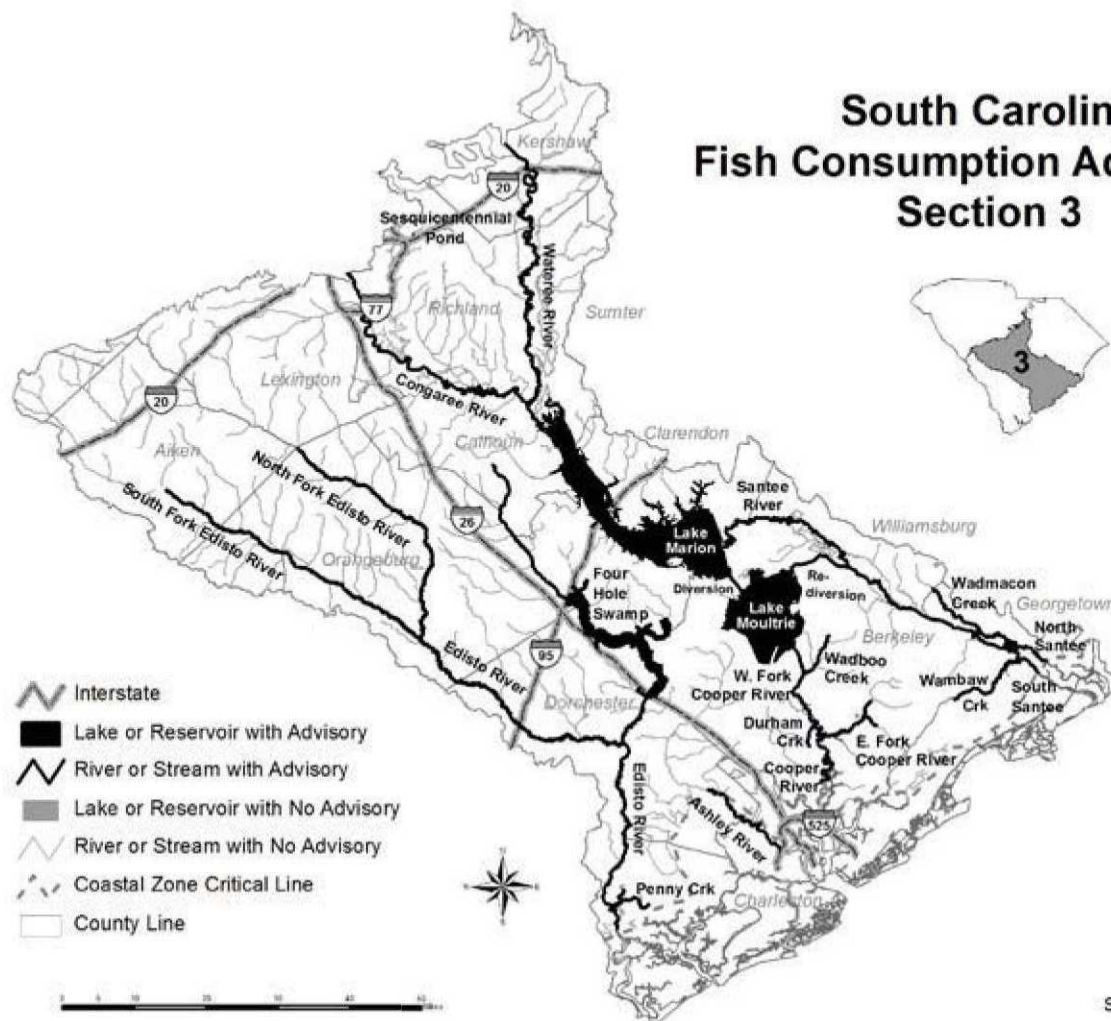
The information provided in the table below is general guidance for mercury contamination. DHEC may have advisories for other contaminants such as PCBs or for fish that may fall in the “Mercury Usually Lower” category. For detailed information, please refer to the waterbody and species of concern in the bulletin.

| Mercury Usually Higher | Mercury Usually Lower |
|------------------------------|------------------------------------|
| Canned White Tuna (Albacore) | Canned Light Tuna (Non-Albacore) |
| Bowfin (Mudfish) | Shrimp |
| Catfish | Salmon |
| Largemouth Bass | Mahi-mahi (Dolphinfish) |
| Shark | Flounder |
| King Mackerel | Speckled Trout (Spotted Sea Trout) |
| Swordfish | Bluegill and Other Sunfishes |
| Tilefish | Lobster |

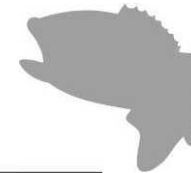
To identify the different types of fish in South Carolina, go to Pages 35 and 36.



South Carolina Fish Consumption Advisories Section 3



Section 3: Waterbodies with Advisories



- For additional advice for at-risk women and children—see Page 2
- If a water body or fish is not listed—see Page 3
- For estuarine and marine waters advisories—see Page 34

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|--|---|-------------------|-----------------|
| Ashley River | From State Rd. 165 to I-526 | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Black Crappie | 1 meal a week |
| | | Blue Catfish | 1 meal a week |
| | | Bluegill | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Channel Catfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Congaree River | From Columbia to the Santee River | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Cooper River (continued on next page) | East Fork Cooper River Quinby Creek to the "T" | Striped Bass | No Restrictions |
| | | Chain Pickerel | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Spotted Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | Bowfin (Mudfish) | No Restrictions |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|-----------------------------|---|-------------------|-----------------|
| Cooper River (continued) | West Fork Cooper River From Lake Moultrie Dam to the "T" | Bowfin (Mudfish) | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Largemouth Bass | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | The "T" to Bushy Park | Bowfin (Mudfish) | 1 meal a month |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Largemouth Bass | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | Downstream of Bushy Park | Red Drum | No Restrictions |
| | | Spotted Sea Trout | No Restrictions |
| | | Southern Flounder | No Restrictions |
| | | Striped Mullet | No Restrictions |
| Durham Creek | Entire Creek (Berkeley County) | Bowfin (Mudfish) | 1 meal a week |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Largemouth Bass | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|-----------------|--------------------------------|-------------------|-----------------|
| Edisto River | Entire River to Willtown Bluff | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Channel Catfish | DO NOT EAT ANY |
| | | Flathead Catfish | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Blue Catfish | 1 meal a month |
| | | Black Crappie | 1 meal a week |
| | | Bluegill | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| Four Hole Swamp | Entire Swamp | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Bluegill | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Warmouth | 1 meal a week |
| Lake Marion | Entire Lake | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | Yellow Perch | No Restrictions |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|--|-------------------|-------------------|-----------------|
| Diversion Canal (Santee Cooper Lakes) | Entire Canal | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Rediversion Canal (Santee Cooper Lakes) | Entire Canal | Blue Catfish | 1 meal a week |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| Lake Moultrie | Entire Lake | Bowfin (Mudfish) | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Largemouth Bass | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | Yellow Perch | No Restrictions |
| North Fork Edisto River | Orangeburg County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Warmouth | 1 meal a month |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Striped Bass | 1 meal a week |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|-----------------------------|--|-------------------|-----------------|
| North Santee River | From the Santee River to U.S. Hwy. 17/701 Bridge | Black Crappie | 1 meal a week |
| | | Blue Catfish | 1 meal a week |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Chain pickerel | 1 meal a week |
| | | Flathead Catfish | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Red Drum | No Restrictions |
| | | Striped Mullet | No Restrictions |
| Penny Creek | Charleston County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Striped Bass | 1 meal a month |
| Santee River | From Lake Marion to the South Santee River | Largemouth Bass | 1 meal a month |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Striped Mullet | No Restrictions |
| Sesquicentennial State Park | Entire Lake | Largemouth Bass | DO NOT EAT ANY |
| | | Black Crappie | 1 meal a month |
| | | Chain Pickerel | 1 meal a month |
| | | Bluegill | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| South Fork Edisto River | From Aiken State Park to Edisto River | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Flathead Catfish | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| South Santee River | From the Santee River to U.S. Hwy. 17/701 Bridge | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Flathead Catfish | DO NOT EAT ANY |
| | | Blue Catfish | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |

All advisories are due to mercury unless otherwise noted.

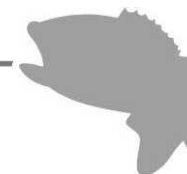
| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|----------------|--|-------------------|-----------------|
| Wadboo Creek | Berkeley County to U.S. Hwy 17 | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Chain Pickerel | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Wadmacon Creek | Georgetown County | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Blue Catfish | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Wambaw Creek | Charleston County | Bowfin (Mudfish) | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Blue Catfish | No Restrictions |
| | | Largemouth Bass | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| Wateree River | *PCB and Mercury Advisory Entire River (Downstream of Lake Wateree to the Congaree River) | Blue Catfish | 1 meal a month |
| | | Channel Catfish | 1 meal a month |
| | | Bowfin (Mudfish) | 1 meal a week |
| | | Flathead Catfish | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

All advisories are due to mercury unless otherwise noted.

NO ADVISORIES (eat as many fish as you'd like from the following waterbodies)

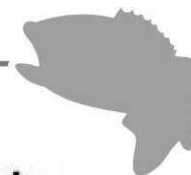
- Cape Romain
- Muddy Bay
- Ashley River (downstream of U.S. Hwy 17)
- Edisto River (downstream of U.S. Hwy 17)
- Back River Reservoir
- Charleston Harbor
- Lower Wando River
- Goose Creek Reservoir



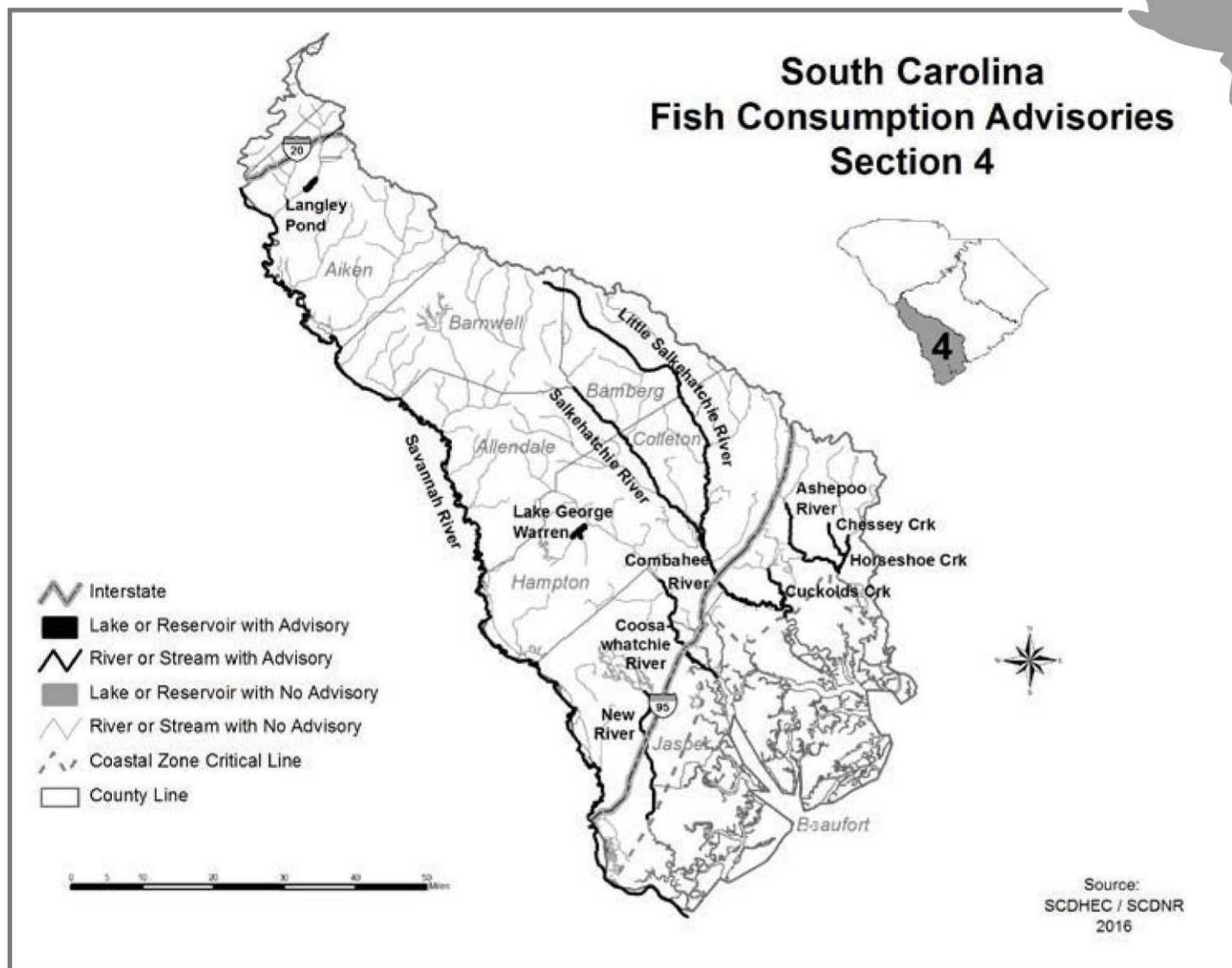
Did you know?

Fish store PCBs and mercury in different parts of their bodies.

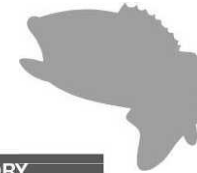
| PCBs | MERCURY |
|---|--|
| Stored in the fat PCBs remain in the body for long periods of time--may take several years to be fully removed from the body. | Stored in the muscle May take up to a year to be completely removed from the body, assuming no more mercury is being ingested. |
| Trimming the fat off the fish can reduce the amount of PCBs by 50 percent. | Trimming the fat will not reduce the amount of mercury since it is found in the protein (meat) of the fish. |
| It's better to boil, bake or grill. Broiling and frying are not the best ways to reduce PCBs. | Cooking methods will not remove mercury contaminants. |
| Larger fish have greater amounts of PCBs in them due to age and diet. | Larger fish have greater amounts of mercury in them due to age and diet. |



South Carolina Fish Consumption Advisories Section 4



Section 4: Waterbodies with Advisories



- For additional advice for at-risk women and children—see Page 2
- If a waterbody or fish is not listed—see Page 3
- For estuarine and marine waters advisories—see Page 34

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---------------------|------------------------------------|-------------------|-----------------|
| Ashepoo River | From Walterboro to U.S. Hwy. 17 | Bowfin (Mudfish) | 1 meal a month |
| | | Largemouth Bass | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| Chessey Creek | Colleton County | Largemouth Bass | 1 meal a week |
| | | Bowfin (Mudfish) | No Restrictions |
| Combahee River | Salkehatchie River to U.S. Hwy. 17 | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Channel Catfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | White Catfish | No Restrictions |
| Coosawhatchie River | Jasper County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Warmouth | DO NOT EAT ANY |
| | | All Other Fish | 1 meal a week |
| Cuckolds Creek | Colleton County | Bowfin (Mudfish) | 1 meal a month |
| | | Bluegill | No Restrictions |
| | | Largemouth | No Restrictions |

All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---------------------------|---|-------------------|-----------------|
| Horseshoe Creek | Colleton County | Bowfin (Mudfish) | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| Lake George Warren | Hampton County | Largemouth Bass | 1 meal a week |
| Langley Pond | Entire Pond <i>*High levels of PCBs have also been found in Largemouth Bass.</i> | Channel catfish | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Black Crappie | 1 meal a month |
| | | Chain pickerel | 1 meal a month |
| | | All Other Fish | 1 meal a week |
| Little Salkehatchie River | Entire River | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Chain Pickerel | 1 meal a month |
| | | Warmouth | 1 meal a month |
| | | All Other Fish | 1 meal a week |
| New River | Jasper County to Cook Landing | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Black Crappie | 1 meal a week |
| | | Chain Pickerel | 1 meal a week |
| | | Bluegill | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| Salkehatchie River | From U.S. Hwy. 301 to Combahee River | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Chain Pickerel | 1 meal a month |
| | | Largemouth Bass | 1 meal a month |
| | | Redbreast Sunfish | 1 meal a week |
| | | Warmouth | 1 meal a week |

*See Page 10 to learn about cleaning and cooking fish to reduce PCBs.

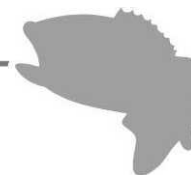
All advisories are due to mercury unless otherwise noted.

| WATERBODY | LOCATION | SPECIES OF FISH | ADVISORY |
|---|--|-------------------|-----------------|
| Savannah River <i>Some data for the Savannah River was provided by the Georgia Department of Natural Resources.</i> <i>Some fish also contain cesium-137 and strontium-90.</i> | From Stevens Creek in Edgefield County to S.C. Hwy. 119 in Jasper County | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | 1 meal a month |
| | | Chain Pickerel | 1 meal a week |
| | | Spotted Sucker | 1 meal a week |
| | | Black Crappie | No Restrictions |
| | | Bluegill | No Restrictions |
| | | Channel Catfish | No Restrictions |
| | | Redbreast Sunfish | No Restrictions |
| | | Redear Sunfish | No Restrictions |
| | | Warmouth | No Restrictions |
| | | Yellow Perch | No Restrictions |
| | From S.C. Hwy. 119 in Jasper County to U.S. Hwy. 17 | Bowfin (Mudfish) | DO NOT EAT ANY |
| | | Largemouth Bass | DO NOT EAT ANY |
| | | Black Crappie | 1 meal a week |
| | | Bluegill | 1 meal a week |
| | | Channel Catfish | 1 meal a week |
| | | Redbreast Sunfish | 1 meal a week |
| | | Redear Sunfish | 1 meal a week |
| | Downstream of U.S. Hwy. 17 | White Catfish | 1 meal a week |
| | | Channel Catfish | 1 meal a week |
| | | Largemouth Bass | 1 meal a week |
| | | White Catfish | 1 meal a week |
| | | Red Drum | No Restrictions |

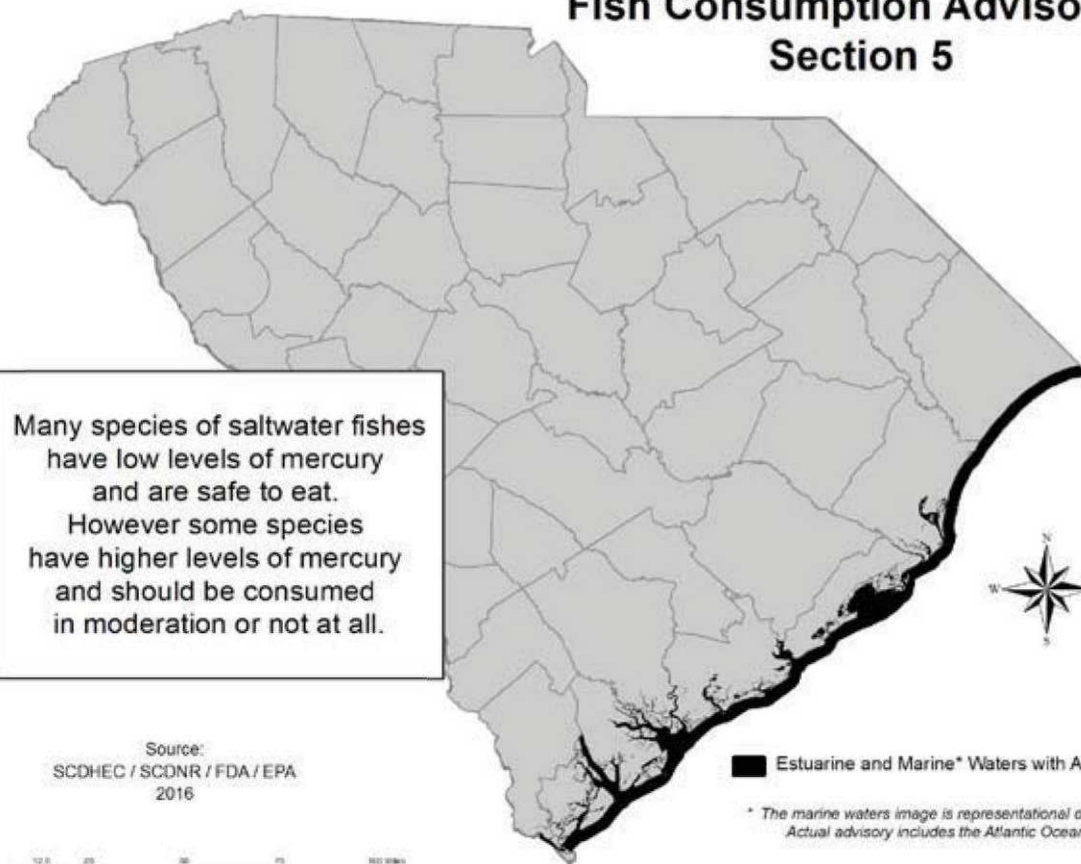
All advisories are due to mercury unless otherwise noted.

NO ADVISORIES (eat as many fish as you'd like from the following waterbodies)

- Combahee River (Downstream of U.S. Hwy. 17)
- Lake Edgar Brown
- Port Royal Sound



South Carolina Fish Consumption Advisories Section 5



Section 5: Waterbodies with Advisories

- For additional advice for at-risk women and children—see Page 2
- If a waterbody or fish is not listed—see Page 3

| DHEC Advice for Estuarine and Marine Waters | |
|--|-----------------|
| SPECIES OF FISH | ADVISORY |
| King Mackerel* over 39 inches | DO NOT EAT ANY |
| Shark* | DO NOT EAT ANY |
| Cobia* | 1 meal a month |
| Swordfish* | 1 meal a month |
| King Mackerel* 33-39 inches | 1 meal a week |
| Tilefish* | 1 meal a week |
| Flounder | No Restrictions |
| King Mackerel* less than 33 inches | No Restrictions |
| Mahi-mahi (Dolphinfish) | No Restrictions |
| Red Drum | No Restrictions |
| Spanish Mackerel | No Restrictions |
| Spot | No Restrictions |
| Spotted Sea Trout | No Restrictions |
| Weakfish | No Restrictions |

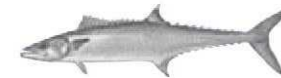
*The EPA and FDA advise women who are or may become pregnant, nursing mothers, and children under 14 not to eat any king mackerel, shark, swordfish or tilefish. DHEC also suggests that these at-risk groups avoid cobia.



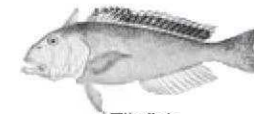
Swordfish



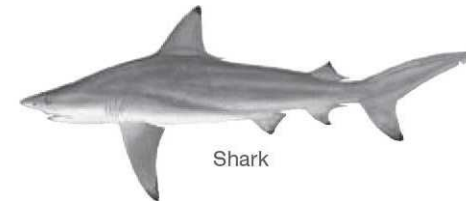
Cobia



King Mackerel



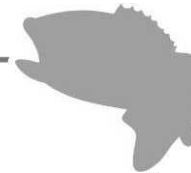
Tilefish



Shark



Identifying Common South Carolina Fish



Fishing is a great way to relax and spend time with family and friends. If you plan to keep what you catch, make sure you can positively identify your fish. This not only helps make sure it meets size and catch regulations, it can also keep you healthy. Use these images to help positively identify your catch.



Black Crappie



Bowfin
(Mudfish)



Channel Catfish



King Mackerel



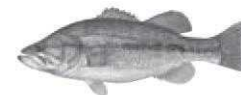
Blue Catfish



Brown Trout



Flathead Catfish



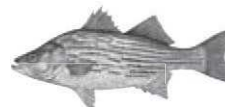
Largemouth Bass



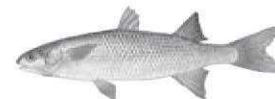
Bluegill



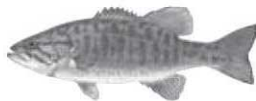
Chain Pickerel
(Jack Fish)



Hybrid Bass



Mullet



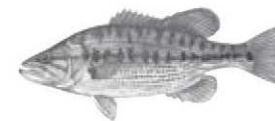
Smallmouth Bass



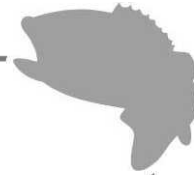
White Bass



Cobia



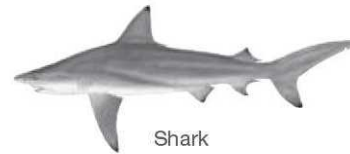
Spotted Bass



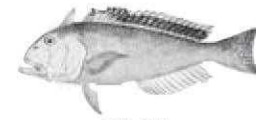
Swordfish



Striped Bass
(Striper)



Shark



Tilefish



Redbreast Sunfish



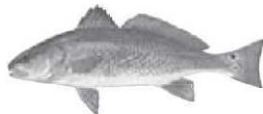
Rainbow Trout



Southern Flounder



Pumpkinseed
Sunfish



Red Drum



Spotted Sea Trout



Warmouth



White Catfish



Redear Sunfish
(Shell Cracker)



Spotted Sucker



White Perch

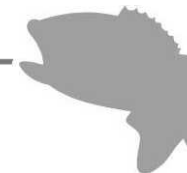


Yellow Perch

Index of Listed Waterbodies –

| | | | | | |
|--|------------|--|------------|--|--------|
| Ashepoo River | 30 | Lake Cooley | 15 | Lumber River | 18 |
| Ashley River | 22 | Lake Cunningham | 15 | Lynches River | 19 |
| Back River Reservoir | 27 | Lake Edgar Brown | 32 | Marine Waters (<i>Atlantic Ocean</i>) | 34 |
| Black Creek | 17 | Lake George Warren | 31 | Middle Tyger River | 15 |
| Black Mingo Creek | 17 | Lake Greenwood | 15 | Mountain Lake 1 | 15 |
| Black River | 17, 19 | Lake H.B. Robinson | 18 | Mountain Lake 2 | 15 |
| Broad River | 15 | Lake Hartwell | 13 | Muddy Bay | 27 |
| Broadway Lake | 15 | Lake J. Strom Thurmond (<i>Clarks Hill Lake</i>) | 14, 15 | New River | 31 |
| Cape Romain | 27 | Lake J.A. Robinson (<i>Greenville County</i>) | 15 | North Fork Edisto River | 25 |
| Catawba River | 13 | Lake John D. Long | 15 | North Santee River | 26 |
| Cedar Creek Reservoir | 13 | Lake Jocassee | 13 | North Tyger River | 15 |
| Charleston Harbor | 27 | Lake Keowee | 14 | Parr Reservoir | 15 |
| Chessey Creek | 30 | Lake Marion | 24, 26 | Penny Creek | 26 |
| Clarks Creek | 17 | Lake Monticello | 15 | Pocotaligo River | 19 |
| Combahee River | 30, 31, 32 | Lake Monticello <i>Sub-Impoundment</i> | 15 | Port Royal Sound | 32 |
| Congaree River | 15, 22, 27 | Lake Moultrie | 23, 25 | Rediversion Canal (<i>Santee Cooper Lakes</i>) | 25 |
| Cooper River | 22-23 | Lake Murray | 15 | Russ Creek | 19 |
| Coosawhatchie River | 30 | Lake Oliphant | 15 | Salkehatchie River | 30, 31 |
| Cuckolds Creek | 30 | Lake Prestwood | 18 | Saluda River | 15 |
| Dargan's Pond | 17 | Lake Rabon | 15 | Sampit River | 19 |
| Diversion Canal (<i>Santee Cooper Lakes</i>) | 25 | Lake Russell | 14 | Santee River | 22, 26 |
| Durham Creek | 23 | Lake Secession | 15 | Savannah River | 15, 32 |
| Edisto River | 24, 26, 27 | Lake Thicketty | 15 | Sesquicentennial State Park | 26 |
| Estuarine Waters | 34 | Lake Tugaloo | 14 | South Fork Edisto River | 26 |
| Fishing Creek Reservoir | 13 | Lake Wateree | 14, 15, 27 | South Santee River | 26 |
| Four Hole Swamp | 24 | Lake Wallace | 18 | Star Fort Pond | 15 |
| Goose Creek Reservoir | 27 | Lake Wylie | 14 | Sunrise Lake | 15 |
| Great Pee Dee River | 17, 18, 19 | Lake Yonah | 14 | Waccamaw River | 19 |
| Horseshoe Creek | 31 | Lancaster Reservoir | 15 | Wadboo Creek | 27 |
| Intracoastal Waterway | 18 | Langley Pond | 31 | Wadmacon Creek | 27 |
| Lake Ashwood | 18 | Little Pee Dee River | 18 | Wambaw Creek | 27 |
| Lake Blalock | 15 | Little River | 15 | Wateree River | 15, 27 |
| Lake Bowen | 15 | Little Salkehatchie River | 31 | Winyah Bay | 17 |
| Lake Cherokee | 15 | Louthers Lake | 18 | | |
| Lake Conestee | 13 | Lower Wando River | 27 | | |

For More Information: _____



MyFiSH: Mercury in Fish and Small-Pond Health

If you enjoy catching and eating fish from a small private pond or community lake, there's now a tool to help you estimate the amount of fish that can be safely consumed. Learn more at: www.scdhec.gov/myfish.

South Carolina Fish Consumption Advisories and Information

S.C. Department of Health
and Environmental Control
2600 Bull Street
Columbia, S.C. 29201
1 (888) 849-7241 (toll-free)
www.scdhec.gov/fish

South Carolina Fishing and Boating Rules and Regulations

S.C. Department of Natural Resources
P.O. Box 167
Columbia, S.C. 29202
(803) 734-3886
www.dnr.sc.gov

National Fish Consumption Advisories

Food and Drug Administration and
Environmental Protection Agency
1 (888) SAFE-FOOD (toll-free)
www.fda.gov/Food/PopularTopics/ucm341987.htm
www.epa.gov/ost/fish

Georgia Fish Consumption Advisories

GA Department of Natural Resources
2 Martin Luther King, Jr. Drive, S.E., Suite 1152
Atlanta, GA 30334-9000
(404) 463-4929
www.gaepd.org/Documents/fish_guide.html

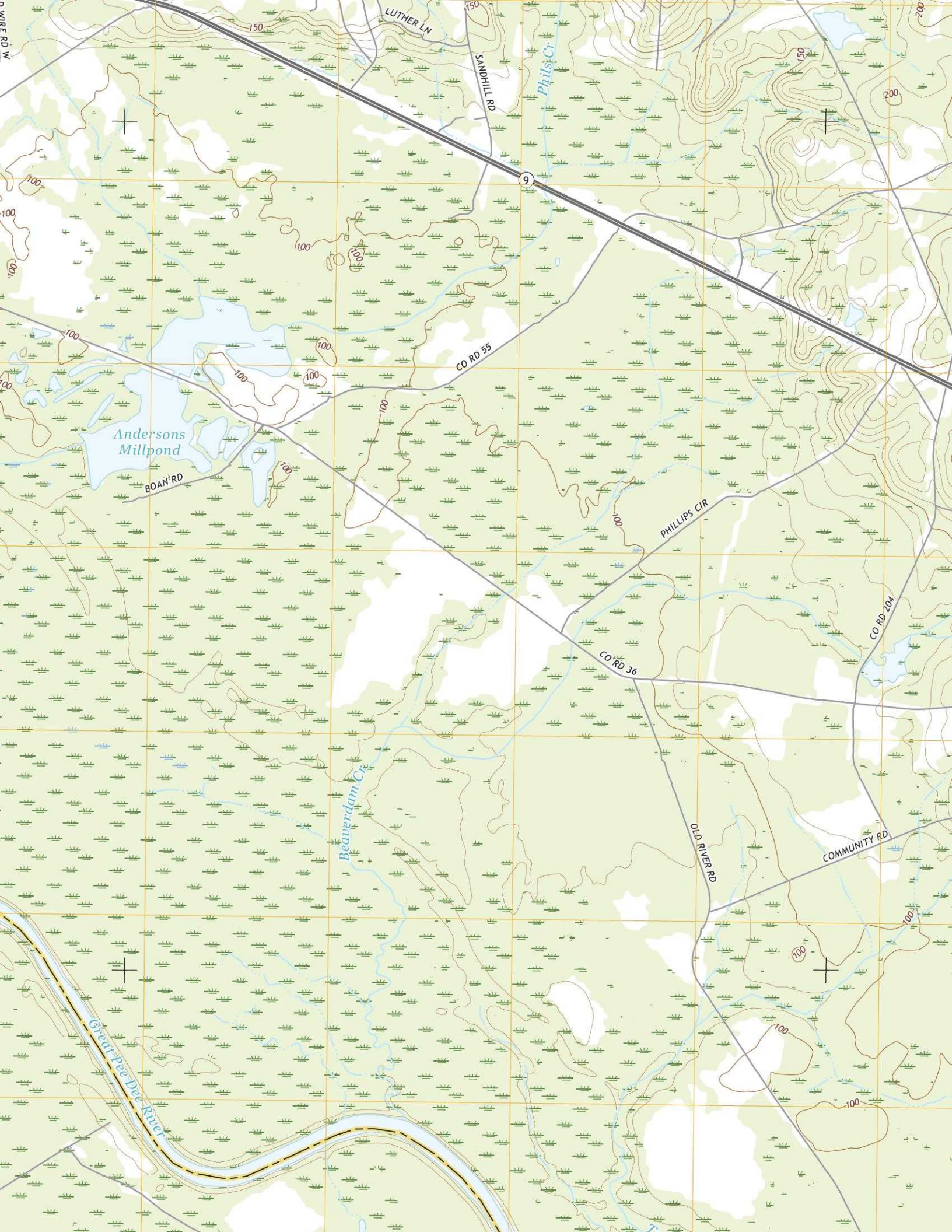
Ordering Copies of This Booklet

To order additional copies of this booklet, contact DHEC's Materials Library at (803) 898-3803
or order online at www.scdhec.gov/fish.

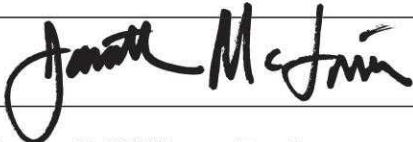

Fish Advisory Hotline
1 (888) 849-7241 (toll-free)

Fish Advisory Website
www.scdhec.gov/fish





SECTION A: Project Planning Elements

| | | |
|---|---|---------------|
| A1. Title (<i>Project Name</i>): | Cheraw Riverside Dump | |
| Project Location: | Cheraw (Chesterfield County), SC | |
| Originating Organization: | SCDHEC Federal & State Site Assessment Section | |
| SCDHEC Section Manager | Jonathan McInnis, Section Manager | |
| Section Manager's Signature |  | Date: 8/14/17 |
| Project Manager's Name, Position, and Organization: | Jason C. Williams, Environmental Health Manager – SCDHEC | |
| Project Manager's Signature: |  | Date: 8/14/17 |
| EPA Project Manager's Name and Position: | Jeffery Crowley, Site Assessment Manager- U.S. EPA | |
| EPA Project Manager's Signature: | | Date: |

| | |
|-------------------------------------|--|
| <p>A2. Table of Contents</p> | <p>A1. Title (<i>Project Name</i>): 1</p> <p>A2. Table of Contents 2</p> <p>A3. Distribution List 2</p> <p>A4. Project Personnel 3</p> <p>A5. Background: 3</p> <p>A6. Project Description: 3</p> <p>A7. Quality Objectives and Criteria 4</p> <p>A8. Special Training/Certifications 4</p> <p>A9. Documents and Records 4</p> <p><i>SECTION B: Data Generation and Acquisition 5</i></p> <p>B1. Sampling Design 5</p> <p>B2. Sampling Methods, General Procedures 6</p> <p>B3. Sampling Handling and Custody 6</p> <p>B4. Analytical Methods 6</p> <p>B5. Quality Control 6</p> <p>B6. Instrument/Equipment Testing, Inspection and Maintenance 7</p> <p>B7. Instrument/Equipment Calibration and Frequency 7</p> <p>B8. Inspection/Acceptance for Supplies and Consumables 7</p> <p>B9. Non-direct Measurements 7</p> <p>B10. Data Management 7</p> <p>C1. Assessments and Response Actions 8</p> <p>C2. Reports to Management 8</p> <p>D1. Data Review, Verification, and Validation 8</p> <p>D2. Verification and Validation Methods 8</p> <p>D3. Reconciliation with User Requirements 8</p> <p>Figures 9</p> |
| <p>A3. Distribution List</p> | <p>Sampling Team, Waste Assessment</p> |

| A4. Project Personnel | Organization | Responsibilities |
|--|---|------------------|
| Jason C Williams | SCDHEC | Project Manager |
| Jonathan McInnis | SCDHEC | SCRIBE |
| Tim Kadar | SCDHEC | Sampling |
| | | |
| Dana Cook | SCDHEC | Sampling |
| Karen Seaber | SCDHEC | Sampling |
| Comments: | | |
| Organization Chart: Refer to SCDHEC Site Assessment Program Level QAPP | | |
| A5. Background: | <p>The site is currently a City park and boat landing along the Pee Dee River. Historically the site was occupied as a toll bridge and steamboat landing. The site was used as a city dump for an undetermined amount of time. Municipal and potentially industrial waste from nearby industries was disposed of at the site.</p> <p>The current park was established in 1976 and is used by residents for recreation and fishing. Debris <i>e.g.</i> glass, pottery, melted rubber was noted across the park.</p> | |
| A6. Project Description: | <p>Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the site Assessment Section, South Carolina Department of Health & Environmental Control will conduct an Expanded PreCERCLIS Sampling at the above listed site.</p> <p>For this study, environmental sampling will concentrate on Soil Exposure and Surface Water Pathway.</p> <p>Sediment sampling from the Pee DEE River, along the footprint of the former dump will be collected to evaluate the potential release of SCDM listed constituents into the Surface Water Pathway and their impact(s) to the said Pathway as related to the CERCLIS HRS scoring system.</p> <p>Soil samples will be collected on site to evaluate potential exposure to park visitors</p> <p>The site is not in operation, therefore the Air Pathway will not be evaluated at this time.</p> <p>Sampling at the site will be conducted the week of August 21, 2017.</p> | |
| Decision(s) to be made based on data: | The information gathered from this investigation will be used to decide if the site will be placed on CERCLIS or managed by some other program area. | |

| | |
|---|--|
| Applicable regulatory information, actions levels, etc. | Refer to SCDHEC Site Assessment Program Level QAPP |
| Field Study Date: | August 21, 2017 |
| Projected Lab Completion Date: | September 15, 2017 |
| Final Report Completion Date: | September 20, 2017 |

A7. Quality Objectives and Criteria

All media samples collected in this study will be analyzed for the following:

- SOM01.2 Semivolatile Target Compound List as listed at <http://www.epa.gov/superfund/programs/clp/som-svtarget.htm>
- SOM01.2 Pesticides/Aroclors Target Compound List as listed at <http://www.epa.gov/superfund/programs/clp/som-ptarget.htm>
- ILM05.3/ILM05.4 Metals and Cyanide Target Analyte List (ICP-MS + Hg & Cn) as listed at <http://www.epa.gov/superfund/programs/clp/mtarget.htm>

All media samples will be analyzed at low concentrations.
Refer to SCDHEC Site Assessment Program Level QAPP.

A8. Special Training/Certifications

Refer to SCDHEC Site Assessment Program Level QAPP

A9. Documents and Records

Refer to SCDHEC Site Assessment Program Level QAPP.

All field observations, measurements and sampling activities supporting the field investigation will be recorded and documented according to the SESD *Operating Procedure for Logbooks*, SESDPROC-010-R3 and the SCDHEC SOP&QA Manual.

SECTION B: Data Generation and Acquisition

B1. Sampling Design

Refer to SCDHEC Site Assessment Program Level QAPP.

| Sample Number | Sample Media | Analyses | Location/Rationale |
|---------------------------------------|--------------|---|--|
| CR-001-SD | Sediment | SVOA (Low soil) Pesticides / Aroclors ICP-AES Metals Mercury | Location: Sediment will be collected from the Pee Dee River upstream from the former dump Rationale: Control sediment sample |
| CR-002 thru 004-SD | Sediment | SVOA (Low soil) Pesticides / Aroclors ICP-AES Metals Mercury | Location: Sediment Samples to be collected from the Pee Dee River adjacent to the site. Rationale: Determine if there has been a historical release of constituents from the site that may impact the surface water pathway |
| CR-005-SF | Surface Soil | SVOA (Low soil) Pesticides / Aroclors ICP-AES Metals Mercury | Location: Surface Soil Sample collected from an area off site. To be determined in the field. Rationale: Control surface soil sample |
| CR-006 thru 011-SF (009 Duplicate) | Surface Soil | | Location: Surface Soil Samples to be collected from the former dump. Exact locations to be determined in the field. Rationale: Determine if there has been a historical release of constituents from the site that may impact the Soil Exposure Pathway |
| CR-012-SD | Sediment | SVOA (Low soil) Pesticides / Aroclors ICP-AES Metals Mercury | Location: Sediment Sample to be collected from ditch upstream of the landfill Rationale: Control sample for ditch |

Volume, Holding Time, and Preservation Requirements. See SCDHEC Site Assessment Program Level QAPP

Maps or Diagrams with sample locations: See Attached

B2. Sampling Methods, General Procedures

Refer to SCDHEC Site Assessment Program Level QAPP.

B3. Sampling Handling and Custody

All samples will be handled and custody maintained in accordance with the SESD *Operating Procedure for Sample Evidence Management*, SESDPROC-005-R1 and the SCDHEC SOP&QA Manual.

Refer to SCDHEC Site Assessment Program Level QAPP.

B4. Analytical Methods

| | |
|---------------|---|
| SESD: | Suggested references are found at http://epa.gov/region4/sesd/asbsop/asb-loqam.pdf |
| CLP: | Suggested references are found at www.epa.gov/superfund/programs/clp . |
| Other: | |

B5. Quality Control

| | |
|--------------------|--|
| Field: | Refer to SCDHEC Site Assessment Program Level QAPP. |
| Laboratory: | Refer to SCDHEC Site Assessment Program Level QAPP and selected CLP QA/QC. |

B6. Instrument/Equipment Testing, Inspection and Maintenance

Refer to SCDHEC Site Assessment Program Level QAPP.

B7. Instrument/Equipment Calibration and Frequency

Refer to SCDHEC Site Assessment Program Level QAPP.

B8. Inspection/Acceptance for Supplies and Consumables

Refer to SCDHEC Site Assessment Program Level QAPP.

B9. Non-direct Measurements

Refer to SCDHEC Site Assessment Program Level QAPP.

B10. Data Management

The project manager will be responsible for ensuring that all requirements for data management are met. All data generated for this field investigation, whether hand-recorded or obtained using an electronic data logger will be recorded, stored and managed according to the following procedures:

SESD Operating Procedure for Control of Records, SESDPROC-002-R3. SESD Operating Procedures for Logbooks, SESDPROC-010-R3.

Refer to SCDHEC Site Assessment Program Level QAPP.

SECTION C: Assessment/Oversight

C1. Assessments and Response Actions

Assessments will be conducted during the field investigation according to the *SESD Operating Procedure for Project Planning*, SESDPROC-016-R1 to ensure the QAPP is being implemented as approved. The Project Manager is responsible for all corrective actions while in the field.

Refer to SCDHEC Site Assessment Program Level QAPP.

C2. Reports to Management

The SCDHEC Project Manager (PM), Jason C. Williams will be responsible for notifying the EPA Project Manager, Jeffery Crowley if any circumstances arise during the field investigation that may adversely impact the quality of the data collected. SCDHEC PM will prepare said report and send to EPA PM for review.

SECTION D: Data Validation and Usability

D1. Data Review, Verification, and Validation

Refer to SCDHEC Site Assessment Program Level QAPP.

D2. Verification and Validation Methods

Refer to SCDHEC Site Assessment Program Level QAPP.

D3. Reconciliation with User Requirements

Refer to SCDHEC Site Assessment Program Level QAPP.

****Footnotes:** This Quality Assurance Project Plan (QAPP) has been prepared and approved according to the EPA *Requirements for Quality Assurance Project Plans (EPA QA/R5 EPA/240/B-01/003)*, U.S. Environmental Protection Agency, Office of Environmental Information, Washington, DC, March 2001(USEPA, 2001). This document will be used to ensure that the environmental data collected for this project are of the type and quality for the intended purposes.



Figure 1. Site Location

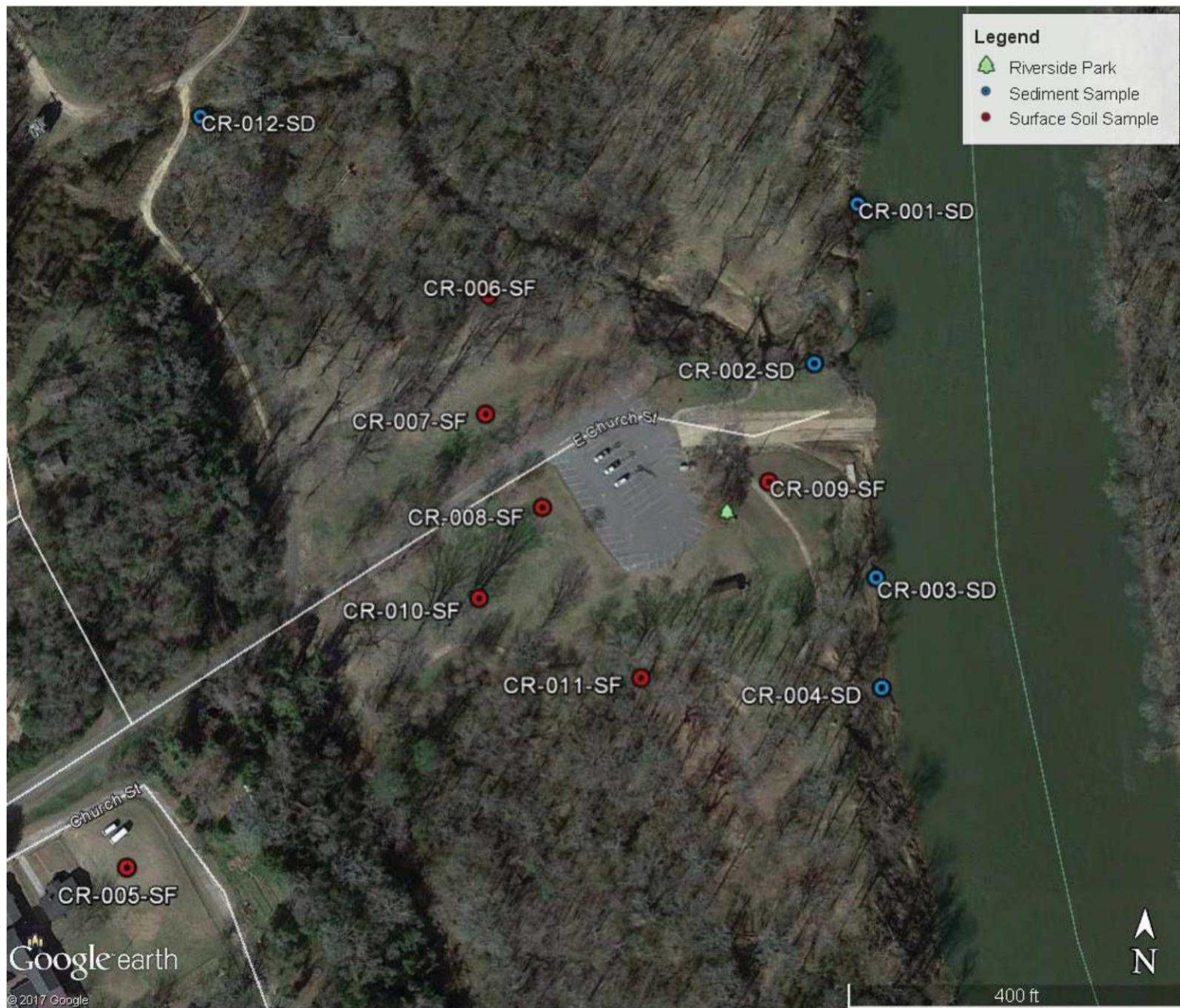


Figure 2. Sampling Locations



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

September 19, 2017

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 17-0516, Cheraw Riverside Dump
Superfund Remedial

FROM: Jason Collum
OCS Analyst

THRU: Jeffrey Hendel, Chief
ASB Organic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Organochlorine Pesticides (OCP)

Organochlorine pesticides

EPA 8270D (mod) (Soil)

ISO

PCB Aroclors (PCBA)

PCB aroclors

EPA 8082 (Soil)

ISO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Sample Disposal Policy

Due to limited space for long term sample storage, ASB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

cc: Nardina Turner



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

SAMPLES INCLUDED IN THIS REPORT

Project: 17-0516, Cheraw Riverside Dump

| Sample ID | Laboratory ID | Matrix | Date Collected | Date Received |
|-----------|---------------|--------------|----------------|---------------|
| CR-001-SD | E173403-01 | Sediment | 8/23/17 12:25 | 8/24/17 10:10 |
| CR-002-SD | E173403-02 | Sediment | 8/23/17 12:42 | 8/24/17 10:10 |
| CR-003-SD | E173403-03 | Sediment | 8/23/17 12:00 | 8/24/17 10:10 |
| CR-004-SD | E173403-04 | Sediment | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-005-SF | E173403-05 | Surface Soil | 8/23/17 11:25 | 8/24/17 10:10 |
| CR-006-SF | E173403-06 | Surface Soil | 8/23/17 11:06 | 8/24/17 10:10 |
| CR-007-SF | E173403-07 | Surface Soil | 8/23/17 11:20 | 8/24/17 10:10 |
| CR-008-SF | E173403-08 | Surface Soil | 8/23/17 11:45 | 8/24/17 10:10 |
| CR-009-SF | E173403-09 | Surface Soil | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-010-SF | E173403-10 | Surface Soil | 8/23/17 11:50 | 8/24/17 10:10 |
| CR-011-SF | E173403-11 | Surface Soil | 8/23/17 12:15 | 8/24/17 10:10 |
| CR-012-SD | E173403-12 | Sediment | 8/23/17 12:20 | 8/24/17 10:10 |
| CR-013-SF | E173403-13 | Surface Soil | 8/23/17 12:50 | 8/24/17 10:10 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

DATA QUALIFIER DEFINITIONS

| | |
|-----|---|
| U | The analyte was not detected at or above the reporting limit. |
| CR | MRL elevated due to the presence of Ar1248. |
| CRa | Results estimated due to toxaphene present being weathered or degraded. |
| D-4 | MRL elevated due to interferences. |
| I-5 | Mixture of Aroclors in sample; predominant Aroclors reported |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |

ACRONYMS AND ABBREVIATIONS

| | |
|-----|---|
| CAS | Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory. |
| MDL | Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero. |
| MRL | Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. |
| TIC | Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported. |

ACCREDITATIONS:

| | |
|-----|--|
| ISO | ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board. Refer to the certificate and scope of accreditation AT-1644 at: http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd |
| NR | The EPA Region 4 Laboratory has not requested accreditation for this test. |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-001-SD

Lab ID: E173403-01

Station ID: CR001

Matrix: Sediment

Date Collected: 8/23/17 12:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 2.0 | U | ug/kg dry | 2.0 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 99 | U | ug/kg dry | 99 | 8/28/17 9:31 | 9/07/17 16:39 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-001-SD

Lab ID: E173403-01

Station ID: CR001

Matrix: Sediment

Date Collected: 8/23/17 12:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 25 | U | ug/kg dry | 25 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 12 | U | ug/kg dry | 12 | 8/28/17 9:32 | 9/01/17 14:11 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-002-SD

Lab ID: E173403-02

Station ID: CR002

Matrix: Sediment

Date Collected: 8/23/17 12:42

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 100 | U | ug/kg dry | 100 | 8/28/17 9:31 | 9/07/17 16:55 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-002-SD

Lab ID: E173403-02

Station ID: CR002

Matrix: Sediment

Date Collected: 8/23/17 12:42

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 170 | U, CR | ug/kg dry | 170 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 83 | J, I-5 | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 84 | U, CR | ug/kg dry | 84 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:24 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-003-SD

Lab ID: E173403-03

Station ID: CR003

Matrix: Sediment

Date Collected: 8/23/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.8 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.8 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 81 | U | ug/kg dry | 81 | 8/28/17 9:31 | 9/07/17 17:10 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-003-SD

Lab ID: E173403-03

Station ID: CR003

Matrix: Sediment

Date Collected: 8/23/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 20 | U | ug/kg dry | 20 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 64 | J, I-5 | ug/kg dry | 10 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 65 | U, CR | ug/kg dry | 65 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 10 | U | ug/kg dry | 10 | 8/28/17 9:32 | 9/01/17 14:38 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-004-SD

Lab ID: E173403-04

Station ID: CR004

Matrix: Sediment

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 91 | U | ug/kg dry | 91 | 8/28/17 9:31 | 9/07/17 17:26 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-004-SD

Lab ID: E173403-04

Station ID: CR004

Matrix: Sediment

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 23 | U | ug/kg dry | 23 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 13 | U | ug/kg dry | 13 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 14:50 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-005-SF

Lab ID: E173403-05

Station ID: CR005

Matrix: Surface Soil

Date Collected: 8/23/17 11:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 4.5 | | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 3.7 | | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.4 | U | ug/kg dry | 1.4 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 70 | U | ug/kg dry | 70 | 8/28/17 9:31 | 9/07/17 17:42 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-005-SF

Lab ID: E173403-05

Station ID: CR005

Matrix: Surface Soil

Date Collected: 8/23/17 11:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 17 | U | ug/kg dry | 17 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 8.7 | U | ug/kg dry | 8.7 | 8/28/17 9:32 | 9/01/17 15:03 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-006-SF

Lab ID: E173403-06

Station ID: CR006

Matrix: Surface Soil

Date Collected: 8/23/17 11:06

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.7 | U | ug/kg dry | 1.7 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 83 | U | ug/kg dry | 83 | 8/28/17 9:31 | 9/07/17 17:57 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-006-SF

Lab ID: E173403-06

Station ID: CR006

Matrix: Surface Soil

Date Collected: 8/23/17 11:06

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 10 | U | ug/kg dry | 10 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 21 | U | ug/kg dry | 21 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 10 | U | ug/kg dry | 10 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 14 | U, D-4 | ug/kg dry | 14 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 14 | U, D-4 | ug/kg dry | 14 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 14 | U, D-4 | ug/kg dry | 14 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 14 | U, D-4 | ug/kg dry | 14 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 14 | U, D-4 | ug/kg dry | 14 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 10 | U | ug/kg dry | 10 | 8/28/17 9:32 | 9/01/17 15:15 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-007-SF

Lab ID: E173403-07

Station ID: CR007

Matrix: Surface Soil

Date Collected: 8/23/17 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 21 | | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 8.8 | | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 100 | U | ug/kg dry | 100 | 8/28/17 9:31 | 9/07/17 18:13 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-007-SF

Lab ID: E173403-07

Station ID: CR007

Matrix: Surface Soil

Date Collected: 8/23/17 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 130 | U, D-4 | ug/kg dry | 130 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 65 | U, D-4 | ug/kg dry | 65 | 8/28/17 9:32 | 9/15/17 12:36 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-008-SF

Lab ID: E173403-08

Station ID: CR008

Matrix: Surface Soil

Date Collected: 8/23/17 11:45

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 20 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 35 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 2.7 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.9 | | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.6 | U | ug/kg dry | 1.6 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 82 | J, CRa | ug/kg dry | 79 | 8/28/17 9:31 | 9/07/17 18:29 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-008-SF

Lab ID: E173403-08

Station ID: CR008

Matrix: Surface Soil

Date Collected: 8/23/17 11:45

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 49 | U, D-4 | ug/kg dry | 49 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 99 | U, D-4 | ug/kg dry | 99 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 49 | U, D-4 | ug/kg dry | 49 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 60 | U, D-4 | ug/kg dry | 60 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 60 | U, D-4 | ug/kg dry | 60 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 60 | U, D-4 | ug/kg dry | 60 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 60 | U, D-4 | ug/kg dry | 60 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 60 | U, D-4 | ug/kg dry | 60 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 49 | U, D-4 | ug/kg dry | 49 | 8/28/17 9:32 | 9/15/17 12:55 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-009-SF

Lab ID: E173403-09

Station ID: CR009

Matrix: Surface Soil

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.5 | | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 75 | U | ug/kg dry | 75 | 8/28/17 9:31 | 9/07/17 18:44 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-009-SF

Lab ID: E173403-09

Station ID: CR009

Matrix: Surface Soil

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 19 | U | ug/kg dry | 19 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 9.3 | U | ug/kg dry | 9.3 | 8/28/17 9:32 | 9/01/17 15:55 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-010-SF

Lab ID: E173403-10

Station ID: CR010

Matrix: Surface Soil

Date Collected: 8/23/17 11:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 73 | U | ug/kg dry | 73 | 8/28/17 9:31 | 9/07/17 19:00 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-010-SF

Lab ID: E173403-10

Station ID: CR010

Matrix: Surface Soil

Date Collected: 8/23/17 11:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 18 | U | ug/kg dry | 18 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 9.1 | U | ug/kg dry | 9.1 | 8/28/17 9:32 | 9/01/17 16:08 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-011-SF

Lab ID: E173403-11

Station ID: CR011

Matrix: Surface Soil

Date Collected: 8/23/17 12:15

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 3.8 | | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 3.1 | | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.5 | U | ug/kg dry | 1.5 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 77 | U | ug/kg dry | 77 | 8/28/17 9:31 | 9/07/17 19:16 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-011-SF

Lab ID: E173403-11

Station ID: CR011

Matrix: Surface Soil

Date Collected: 8/23/17 12:15

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 96 | U, D-4 | ug/kg dry | 96 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 48 | U, D-4 | ug/kg dry | 48 | 8/28/17 9:32 | 9/15/17 13:13 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-012-SD

Lab ID: E173403-12

Station ID: CR012

Matrix: Sediment

Date Collected: 8/23/17 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 6.1 | | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 3.4 | | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 2.1 | U | ug/kg dry | 2.1 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 110 | U | ug/kg dry | 110 | 8/28/17 9:31 | 9/07/17 19:31 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-012-SD

Lab ID: E173403-12

Station ID: CR012

Matrix: Sediment

Date Collected: 8/23/17 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 130 | U, D-4 | ug/kg dry | 130 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 67 | U, D-4 | ug/kg dry | 67 | 8/28/17 9:32 | 9/15/17 13:32 | EPA 8082 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-013-SF

Lab ID: E173403-13

Station ID: CR013

Matrix: Surface Soil

Date Collected: 8/23/17 12:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|----------------------|---------|------------|-----------|-----|--------------|---------------|-----------------|
| 72-54-8 | 4,4'-DDD (p,p'-DDD) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 72-55-9 | 4,4'-DDE (p,p'-DDE) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 50-29-3 | 4,4'-DDT (p,p'-DDT) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 309-00-2 | Aldrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 319-84-6 | alpha-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 5103-71-9 | alpha-Chlordane | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 319-85-7 | beta-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 319-86-8 | delta-BHC | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 60-57-1 | Dieldrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 959-98-8 | Endosulfan I (alpha) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 33213-65-9 | Endosulfan II (beta) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 1031-07-8 | Endosulfan Sulfate | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 72-20-8 | Endrin | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 7421-93-4 | Endrin aldehyde | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 53494-70-5 | Endrin ketone | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 58-89-9 | gamma-BHC (Lindane) | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 5566-34-7 | gamma-Chlordane | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 76-44-8 | Heptachlor | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 1024-57-3 | Heptachlor epoxide | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 72-43-5 | Methoxychlor | 1.8 | U | ug/kg dry | 1.8 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |
| 8001-35-2 | Toxaphene | 91 | U | ug/kg dry | 91 | 8/28/17 9:31 | 9/07/17 19:46 | EPA 8270D (mod) |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-013-SF

Lab ID: E173403-13

Station ID: CR013

Matrix: Surface Soil

Date Collected: 8/23/17 12:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|---------------|-------------------------|---------|------------|-----------|-----|-----------------|------------------|----------|
| 12674-11-2 | PCB-1016 (Aroclor 1016) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 11104-28-2 | PCB-1221 (Aroclor 1221) | 23 | U | ug/kg dry | 23 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 11141-16-5 | PCB-1232 (Aroclor 1232) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 53469-21-9 | PCB-1242 (Aroclor 1242) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 12672-29-6 | PCB-1248 (Aroclor 1248) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 11097-69-1 | PCB-1254 (Aroclor 1254) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 11096-82-5 | PCB-1260 (Aroclor 1260) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 37324-23-5 | PCB-1262 (Aroclor 1262) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |
| 11100-14-4 | PCB-1268 (Aroclor 1268) | 11 | U | ug/kg dry | 11 | 8/28/17 9:32 | 9/01/17 16:48 | EPA 8082 |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1708091 - E 3545A Modified

Blank (1708091-BLK1)

Prepared: 08/28/17 Analyzed: 09/07/17

EPA 8270D (mod)

| | | | | | | | | | | |
|-------------------------------------|------|-----|-----------|--------|--|------|----------|--|--|---|
| Surrogate: Decachlorobiphenyl (DCB) | 34.4 | | ug/kg dry | 33.333 | | 103 | 40.4-121 | | | |
| Surrogate: Tetrachloro-meta-xylene | 14.3 | | " | 16.667 | | 86.0 | 51.2-112 | | | |
| 4,4'-DDD (p,p'-DDD) | U | 1.3 | " | | | | | | | U |
| 4,4'-DDE (p,p'-DDE) | U | 1.3 | " | | | | | | | U |
| 4,4'-DDT (p,p'-DDT) | U | 1.3 | " | | | | | | | U |
| Aldrin | U | 1.3 | " | | | | | | | U |
| alpha-BHC | U | 1.3 | " | | | | | | | U |
| alpha-Chlordane | U | 1.3 | " | | | | | | | U |
| beta-BHC | U | 1.3 | " | | | | | | | U |
| delta-BHC | U | 1.3 | " | | | | | | | U |
| Dieldrin | U | 1.3 | " | | | | | | | U |
| Endosulfan I (alpha) | U | 1.3 | " | | | | | | | U |
| Endosulfan II (beta) | U | 1.3 | " | | | | | | | U |
| Endosulfan Sulfate | U | 1.3 | " | | | | | | | U |
| Endrin | U | 1.3 | " | | | | | | | U |
| Endrin aldehyde | U | 1.3 | " | | | | | | | U |
| Endrin ketone | U | 1.3 | " | | | | | | | U |
| gamma-BHC (Lindane) | U | 1.3 | " | | | | | | | U |
| gamma-Chlordane | U | 1.3 | " | | | | | | | U |
| Heptachlor | U | 1.3 | " | | | | | | | U |
| Heptachlor epoxide | U | 1.3 | " | | | | | | | U |
| Methoxychlor | U | 1.3 | " | | | | | | | U |
| Toxaphene | U | 67 | " | | | | | | | U |

LCS (1708091-BS1)

Prepared: 08/28/17 Analyzed: 09/07/17

EPA 8270D (mod)

| | | | | | | | | | | |
|-------------------------------------|--------|-----|-----------|--------|--|------|----------|--|--|--|
| Surrogate: Decachlorobiphenyl (DCB) | 33.7 | | ug/kg dry | 33.333 | | 101 | 40.4-121 | | | |
| Surrogate: Tetrachloro-meta-xylene | 13.0 | | " | 16.667 | | 77.8 | 51.2-112 | | | |
| 4,4'-DDD (p,p'-DDD) | 11.947 | 1.3 | " | 13.333 | | 89.6 | 54.2-104 | | | |
| 4,4'-DDE (p,p'-DDE) | 11.366 | 1.3 | " | 13.333 | | 85.2 | 51.8-103 | | | |
| 4,4'-DDT (p,p'-DDT) | 9.6517 | 1.3 | " | 13.333 | | 72.4 | 43.1-120 | | | |
| Aldrin | 11.398 | 1.3 | " | 13.333 | | 85.5 | 39.6-121 | | | |
| alpha-BHC | 10.142 | 1.3 | " | 13.333 | | 76.1 | 46.8-101 | | | |
| alpha-Chlordane | 10.535 | 1.3 | " | 13.333 | | 79.0 | 48.1-107 | | | |
| beta-BHC | 11.143 | 1.3 | " | 13.333 | | 83.6 | 46.2-113 | | | |
| delta-BHC | 9.5695 | 1.3 | " | 13.333 | | 71.8 | 52.3-101 | | | |
| Dieldrin | 9.8581 | 1.3 | " | 13.333 | | 73.9 | 20-149 | | | |
| Endosulfan I (alpha) | 10.220 | 1.3 | " | 13.333 | | 76.7 | 29.2-118 | | | |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1708091 - E 3545A Modified

LCS (1708091-BS1)

Prepared: 08/28/17 Analyzed: 09/07/17

| | | | | | | | | | | |
|----------------------|--------|-----|-----------|--------|--|------|-----------|--|--|---|
| Endosulfan II (beta) | 10.601 | 1.3 | ug/kg dry | 13.333 | | 79.5 | 42.8-131 | | | |
| Endosulfan Sulfate | 10.750 | 1.3 | " | 13.333 | | 80.6 | 55.9-98.8 | | | |
| Endrin | 10.949 | 1.3 | " | 13.333 | | 82.1 | 54.4-118 | | | |
| Endrin aldehyde | 9.6093 | 1.3 | " | 13.333 | | 72.1 | 10-119 | | | |
| Endrin ketone | 10.643 | 1.3 | " | 13.333 | | 79.8 | 51.2-116 | | | |
| gamma-BHC (Lindane) | 10.429 | 1.3 | " | 13.333 | | 78.2 | 49-118 | | | |
| gamma-Chlordane | 10.394 | 1.3 | " | 13.333 | | 78.0 | 56.7-109 | | | |
| Heptachlor | 9.6192 | 1.3 | " | 13.333 | | 72.1 | 59.8-127 | | | |
| Heptachlor epoxide | 12.910 | 1.3 | " | 13.333 | | 96.8 | 45.1-115 | | | |
| Methoxychlor | 10.666 | 1.3 | " | 13.333 | | 80.0 | 57.2-134 | | | |
| Toxaphene | U | 67 | " | | | | 75-113 | | | U |

Matrix Spike (1708091-MS1)

Source: E173403-09

Prepared: 08/28/17 Analyzed: 09/07/17

EPA 8270D (mod)

| | | | | | | | | | | |
|-------------------------------------|--------|-----|-----------|--------|--------|------|----------|--|--|---|
| Surrogate: Decachlorobiphenyl (DCB) | 35.7 | | ug/kg dry | 37.313 | | 95.7 | 40.4-121 | | | |
| Surrogate: Tetrachloro-meta-xylene | 15.0 | | " | 18.657 | | 80.5 | 51.2-112 | | | |
| 4,4'-DDD (p,p'-DDD) | 12.844 | 1.5 | " | 14.925 | U | 86.1 | 19.9-151 | | | |
| 4,4'-DDE (p,p'-DDE) | 13.451 | 1.5 | " | 14.925 | 1.5211 | 79.9 | 10-166 | | | |
| 4,4'-DDT (p,p'-DDT) | 13.185 | 1.5 | " | 14.925 | U | 88.3 | 42.9-130 | | | |
| Aldrin | 12.803 | 1.5 | " | 14.925 | U | 85.8 | 40.8-117 | | | |
| alpha-BHC | 11.529 | 1.5 | " | 14.925 | U | 77.2 | 28-132 | | | |
| alpha-Chlordane | 11.802 | 1.5 | " | 14.925 | U | 79.1 | 29.2-140 | | | |
| beta-BHC | 13.466 | 1.5 | " | 14.925 | U | 90.2 | 34.7-137 | | | |
| delta-BHC | 10.973 | 1.5 | " | 14.925 | U | 73.5 | 30.1-129 | | | |
| Dieldrin | 10.591 | 1.5 | " | 14.925 | U | 71.0 | 31.3-118 | | | |
| Endosulfan I (alpha) | 12.054 | 1.5 | " | 14.925 | U | 80.8 | 35.6-118 | | | |
| Endosulfan II (beta) | 12.001 | 1.5 | " | 14.925 | U | 80.4 | 32.2-135 | | | |
| Endosulfan Sulfate | 12.304 | 1.5 | " | 14.925 | U | 82.4 | 40.3-138 | | | |
| Endrin | 12.431 | 1.5 | " | 14.925 | U | 83.3 | 53-135 | | | |
| Endrin aldehyde | 5.6086 | 1.5 | " | 14.925 | U | 37.6 | 10-118 | | | |
| Endrin ketone | 11.405 | 1.5 | " | 14.925 | U | 76.4 | 37.5-135 | | | |
| gamma-BHC (Lindane) | 11.931 | 1.5 | " | 14.925 | U | 79.9 | 53-104 | | | |
| gamma-Chlordane | 11.946 | 1.5 | " | 14.925 | U | 80.0 | 16.9-155 | | | |
| Heptachlor | 11.709 | 1.5 | " | 14.925 | U | 78.4 | 44.9-114 | | | |
| Heptachlor epoxide | 15.434 | 1.5 | " | 14.925 | U | 103 | 49.9-114 | | | |
| Methoxychlor | 12.606 | 1.5 | " | 14.925 | U | 84.5 | 41.3-143 | | | |
| Toxaphene | U | 75 | " | | U | | 62-96 | | | U |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1708091 - E 3545A Modified

Matrix Spike Dup (1708091-MSD1)

Source: E173403-09

Prepared: 08/28/17 Analyzed: 09/07/17

EPA 8270D (mod)

| | | | | | | | | | | |
|-------------------------------------|--------|-----|-----------|--------|--------|------|----------|-------|------|---|
| Surrogate: Decachlorobiphenyl (DCB) | 36.6 | | ug/kg dry | 37.341 | | 98.1 | 40.4-121 | | | |
| Surrogate: Tetrachloro-meta-xylene | 15.5 | | " | 18.671 | | 83.0 | 51.2-112 | | | |
| 4,4'-DDD (p,p'-DDD) | 12.931 | 1.5 | " | 14.937 | U | 86.6 | 19.9-151 | 0.676 | 47.7 | |
| 4,4'-DDE (p,p'-DDE) | 13.293 | 1.5 | " | 14.937 | 1.5211 | 78.8 | 10-166 | 1.18 | 59.6 | |
| 4,4'-DDT (p,p'-DDT) | 13.372 | 1.5 | " | 14.937 | U | 89.5 | 42.9-130 | 1.41 | 32.7 | |
| Aldrin | 13.453 | 1.5 | " | 14.937 | U | 90.1 | 40.8-117 | 4.96 | 29 | |
| alpha-BHC | 12.054 | 1.5 | " | 14.937 | U | 80.7 | 28-132 | 4.46 | 30.3 | |
| alpha-Chlordane | 12.148 | 1.5 | " | 14.937 | U | 81.3 | 29.2-140 | 2.89 | 39.1 | |
| beta-BHC | 14.285 | 1.5 | " | 14.937 | U | 95.6 | 34.7-137 | 5.90 | 27.1 | |
| delta-BHC | 11.507 | 1.5 | " | 14.937 | U | 77.0 | 30.1-129 | 4.75 | 25.2 | |
| Dieldrin | 10.764 | 1.5 | " | 14.937 | U | 72.1 | 31.3-118 | 1.63 | 22.3 | |
| Endosulfan I (alpha) | 11.989 | 1.5 | " | 14.937 | U | 80.3 | 35.6-118 | 0.545 | 28.5 | |
| Endosulfan II (beta) | 11.907 | 1.5 | " | 14.937 | U | 79.7 | 32.2-135 | 0.782 | 27.9 | |
| Endosulfan Sulfate | 12.391 | 1.5 | " | 14.937 | U | 83.0 | 40.3-138 | 0.708 | 29.3 | |
| Endrin | 12.214 | 1.5 | " | 14.937 | U | 81.8 | 53-135 | 1.75 | 29.9 | |
| Endrin aldehyde | 5.1394 | 1.5 | " | 14.937 | U | 34.4 | 10-118 | 8.73 | 44.8 | |
| Endrin ketone | 11.560 | 1.5 | " | 14.937 | U | 77.4 | 37.5-135 | 1.35 | 32.1 | |
| gamma-BHC (Lindane) | 12.339 | 1.5 | " | 14.937 | U | 82.6 | 53-104 | 3.36 | 21.4 | |
| gamma-Chlordane | 12.257 | 1.5 | " | 14.937 | U | 82.1 | 16.9-155 | 2.56 | 37.8 | |
| Heptachlor | 11.957 | 1.5 | " | 14.937 | U | 80.1 | 44.9-114 | 2.10 | 38.2 | |
| Heptachlor epoxide | 14.893 | 1.5 | " | 14.937 | U | 99.7 | 49.9-114 | 3.57 | 28.4 | |
| Methoxychlor | 12.730 | 1.5 | " | 14.937 | U | 85.2 | 41.3-143 | 0.981 | 26.6 | |
| Toxaphene | U | 75 | " | | U | | 62-96 | | 100 | U |

MRL Verification (1708091-PS1)

Prepared: 08/28/17 Analyzed: 09/07/17

EPA 8270D (mod)

| | | | | | | | | | | |
|-------------------------------------|---------|-----|-----------|---------|--|------|----------|--|--|-------------|
| Surrogate: Decachlorobiphenyl (DCB) | 36.0 | | ug/kg dry | 33.333 | | 108 | 40.4-121 | | | |
| Surrogate: Tetrachloro-meta-xylene | 14.9 | | " | 16.667 | | 89.5 | 51.2-112 | | | |
| 4,4'-DDD (p,p'-DDD) | 0.69864 | 1.3 | " | 0.66667 | | 105 | 42.5-140 | | | MRL-3, U |
| 4,4'-DDE (p,p'-DDE) | 0.65192 | 1.3 | " | 0.66667 | | 97.8 | 39-140 | | | MRL-3, U |
| 4,4'-DDT (p,p'-DDT) | 0.53190 | 1.3 | " | 0.66667 | | 79.8 | 49.2-141 | | | MRL-3, U |
| Aldrin | 0.58868 | 1.3 | " | 0.66667 | | 88.3 | 41-132 | | | MRL-3, U |
| alpha-BHC | 0.54277 | 1.3 | " | 0.66667 | | 81.4 | 30.9-136 | | | MRL-3, U |
| alpha-Chlordane | 0.55378 | 1.3 | " | 0.66667 | | 83.1 | 36.5-145 | | | MRL-3, U |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1708091 - E 3545A Modified

MRL Verification (1708091-PS1)

Prepared: 08/28/17 Analyzed: 09/07/17

| | | | | | | | | | | |
|----------------------|---------|-----|-----------|---------|--|------|----------|--|--|-------------|
| beta-BHC | 0.58737 | 1.3 | ug/kg dry | 0.66667 | | 88.1 | 42.8-141 | | | MRL-3, U |
| delta-BHC | 0.52760 | 1.3 | " | 0.66667 | | 79.1 | 30.1-131 | | | MRL-3, U |
| Dieldrin | 0.48454 | 1.3 | " | 0.66667 | | 72.7 | 45.1-133 | | | MRL-3, U |
| Endosulfan I (alpha) | 0.52123 | 1.3 | " | 0.66667 | | 78.2 | 10-143 | | | MRL-3, U |
| Endosulfan II (beta) | 0.51184 | 1.3 | " | 0.66667 | | 76.8 | 10-145 | | | MRL-3, U |
| Endosulfan Sulfate | 0.52946 | 1.3 | " | 0.66667 | | 79.4 | 37.3-146 | | | MRL-3, U |
| Endrin | 0.52636 | 1.3 | " | 0.66667 | | 79.0 | 50.8-142 | | | MRL-3, U |
| Endrin aldehyde | 0.52768 | 1.3 | " | 0.66667 | | 79.2 | 23.8-135 | | | MRL-3, U |
| Endrin ketone | 0.50438 | 1.3 | " | 0.66667 | | 75.7 | 42.2-141 | | | MRL-3, U |
| gamma-BHC (Lindane) | 0.55907 | 1.3 | " | 0.66667 | | 83.9 | 40-129 | | | MRL-3, U |
| gamma-Chlordane | 0.53605 | 1.3 | " | 0.66667 | | 80.4 | 36.3-148 | | | MRL-3, U |
| Heptachlor | 0.54779 | 1.3 | " | 0.66667 | | 82.2 | 51.8-126 | | | MRL-3, U |
| Heptachlor epoxide | 0.57418 | 1.3 | " | 0.66667 | | 86.1 | 51-130 | | | MRL-3, U |
| Methoxychlor | 0.55719 | 1.3 | " | 0.66667 | | 83.6 | 61.8-148 | | | MRL-3, U |
| Toxaphene | U | 67 | " | | | | 55-133 | | | MRL-3, U |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1708092 - E 3545A Modified

Blank (1708092-BLK1)

Prepared: 08/28/17 Analyzed: 09/01/17

EPA 8082

| | | | | | | | | | | |
|------------------------------|---|-----|-----------|--|--|--|--|--|--|---|
| PCB-1016 (Aroclor 1016) | U | 8.3 | ug/kg dry | | | | | | | U |
| PCB-1016 (Aroclor 1016) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1221 (Aroclor 1221) | U | 17 | " | | | | | | | U |
| PCB-1221 (Aroclor 1221) [2C] | U | 17 | " | | | | | | | U |
| PCB-1232 (Aroclor 1232) | U | 8.3 | " | | | | | | | U |
| PCB-1232 (Aroclor 1232) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1242 (Aroclor 1242) | U | 8.3 | " | | | | | | | U |
| PCB-1242 (Aroclor 1242) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1248 (Aroclor 1248) | U | 8.3 | " | | | | | | | U |
| PCB-1248 (Aroclor 1248) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1254 (Aroclor 1254) | U | 8.3 | " | | | | | | | U |
| PCB-1254 (Aroclor 1254) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1260 (Aroclor 1260) | U | 8.3 | " | | | | | | | U |
| PCB-1260 (Aroclor 1260) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1262 (Aroclor 1262) | U | 8.3 | " | | | | | | | U |
| PCB-1262 (Aroclor 1262) [2C] | U | 8.3 | " | | | | | | | U |
| PCB-1268 (Aroclor 1268) | U | 8.3 | " | | | | | | | U |
| PCB-1268 (Aroclor 1268) [2C] | U | 8.3 | " | | | | | | | U |

LCS (1708092-BS1)

Prepared: 08/28/17 Analyzed: 09/01/17

EPA 8082

| | | | | | | | | | | |
|------------------------------|--------|-----|-----------|--------|--|------|----------|--|--|---|
| PCB-1016 (Aroclor 1016) | U | 8.3 | ug/kg dry | | | | 46.6-138 | | | U |
| PCB-1016 (Aroclor 1016) [2C] | U | 8.3 | " | | | | 46.6-138 | | | U |
| PCB-1221 (Aroclor 1221) | U | 17 | " | | | | 46.6-138 | | | U |
| PCB-1221 (Aroclor 1221) [2C] | U | 17 | " | | | | 46.6-138 | | | U |
| PCB-1232 (Aroclor 1232) | U | 8.3 | " | | | | 46.6-138 | | | U |
| PCB-1232 (Aroclor 1232) [2C] | U | 8.3 | " | | | | 46.6-138 | | | U |
| PCB-1242 (Aroclor 1242) | 150.99 | 8.3 | " | 166.67 | | 90.6 | 46.6-138 | | | |
| PCB-1242 (Aroclor 1242) [2C] | 157.64 | 8.3 | " | 166.67 | | 94.6 | 46.6-138 | | | |
| PCB-1248 (Aroclor 1248) | U | 8.3 | " | | | | 46.6-138 | | | U |
| PCB-1248 (Aroclor 1248) [2C] | U | 8.3 | " | | | | 46.6-138 | | | U |
| PCB-1254 (Aroclor 1254) | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1254 (Aroclor 1254) [2C] | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1260 (Aroclor 1260) | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1260 (Aroclor 1260) [2C] | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1262 (Aroclor 1262) | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1262 (Aroclor 1262) [2C] | U | 8.3 | " | | | | 52-134 | | | U |
| PCB-1268 (Aroclor 1268) | 138.61 | 8.3 | " | 166.67 | | 83.2 | 52-134 | | | |
| PCB-1268 (Aroclor 1268) [2C] | 147.69 | 8.3 | " | 166.67 | | 88.6 | 52-134 | | | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1708092 - E 3545A Modified

LCS (1708092-BS1)

Prepared: 08/28/17 Analyzed: 09/01/17

Matrix Spike (1708092-MS1)

Source: E173403-09

Prepared: 08/28/17 Analyzed: 09/01/17

EPA 8082

| | | | | | | | | | | |
|------------------------------|--------|-----|-----------|--------|--------|------|----------|--|--|---|
| PCB-1016 (Aroclor 1016) | U | 9.3 | ug/kg dry | | U | | 25.5-136 | | | U |
| PCB-1016 (Aroclor 1016) [2C] | U | 9.3 | " | | 6.8505 | | 25.5-136 | | | U |
| PCB-1221 (Aroclor 1221) | U | 19 | " | | U | | 25.5-136 | | | U |
| PCB-1221 (Aroclor 1221) [2C] | U | 19 | " | | U | | 25.5-136 | | | U |
| PCB-1232 (Aroclor 1232) | U | 9.3 | " | | U | | 25.5-136 | | | U |
| PCB-1232 (Aroclor 1232) [2C] | U | 9.3 | " | | U | | 25.5-136 | | | U |
| PCB-1242 (Aroclor 1242) | 178.48 | 9.3 | " | 186.78 | U | 95.6 | 25.5-136 | | | |
| PCB-1242 (Aroclor 1242) [2C] | 180.71 | 9.3 | " | 186.78 | U | 96.8 | 25.5-136 | | | |
| PCB-1248 (Aroclor 1248) | U | 9.3 | " | | U | | 25.5-136 | | | U |
| PCB-1248 (Aroclor 1248) [2C] | U | 9.3 | " | | U | | 25.5-136 | | | U |
| PCB-1254 (Aroclor 1254) | U | 9.3 | " | | U | | 16.1-145 | | | U |
| PCB-1254 (Aroclor 1254) [2C] | U | 9.3 | " | | U | | 16.1-145 | | | U |
| PCB-1260 (Aroclor 1260) | U | 9.3 | " | | 5.9880 | | 16.1-145 | | | U |
| PCB-1260 (Aroclor 1260) [2C] | U | 9.3 | " | | 9.8617 | | 16.1-145 | | | U |
| PCB-1262 (Aroclor 1262) | U | 9.3 | " | | U | | 16.1-145 | | | U |
| PCB-1262 (Aroclor 1262) [2C] | U | 9.3 | " | | U | | 16.1-145 | | | U |
| PCB-1268 (Aroclor 1268) | 132.72 | 9.3 | " | 186.78 | U | 71.1 | 16.1-145 | | | |
| PCB-1268 (Aroclor 1268) [2C] | 142.21 | 9.3 | " | 186.78 | U | 76.1 | 16.1-145 | | | |

Matrix Spike Dup (1708092-MSD1)

Source: E173403-09

Prepared: 08/28/17 Analyzed: 09/01/17

EPA 8082

| | | | | | | | | | | |
|------------------------------|--------|-----|-----------|--------|--------|------|----------|-------|------|---|
| PCB-1016 (Aroclor 1016) | U | 9.3 | ug/kg dry | | U | | 25.5-136 | | 36.4 | U |
| PCB-1016 (Aroclor 1016) [2C] | U | 9.3 | " | | 6.8505 | | 25.5-136 | | 36.4 | U |
| PCB-1221 (Aroclor 1221) | U | 19 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1221 (Aroclor 1221) [2C] | U | 19 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1232 (Aroclor 1232) | U | 9.3 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1232 (Aroclor 1232) [2C] | U | 9.3 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1242 (Aroclor 1242) | 179.09 | 9.3 | " | 186.78 | U | 95.9 | 25.5-136 | 0.343 | 36.4 | |
| PCB-1242 (Aroclor 1242) [2C] | 176.11 | 9.3 | " | 186.78 | U | 94.3 | 25.5-136 | 2.58 | 36.4 | |
| PCB-1248 (Aroclor 1248) | U | 9.3 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1248 (Aroclor 1248) [2C] | U | 9.3 | " | | U | | 25.5-136 | | 36.4 | U |
| PCB-1254 (Aroclor 1254) | U | 9.3 | " | | U | | 16.1-145 | | 34.4 | U |
| PCB-1254 (Aroclor 1254) [2C] | U | 9.3 | " | | U | | 16.1-145 | | 34.4 | U |
| PCB-1260 (Aroclor 1260) | U | 9.3 | " | | 5.9880 | | 16.1-145 | | 34.4 | U |
| PCB-1260 (Aroclor 1260) [2C] | U | 9.3 | " | | 9.8617 | | 16.1-145 | | 34.4 | U |
| PCB-1262 (Aroclor 1262) | U | 9.3 | " | | U | | 16.1-145 | | 34.4 | U |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1708092 - E 3545A Modified

Matrix Spike Dup (1708092-MSD1)

Source: E173403-09

Prepared: 08/28/17 Analyzed: 09/01/17

| | | | | | | | | | | |
|------------------------------|--------|-----|-----------|--------|---|------|----------|-------|------|---|
| PCB-1262 (Aroclor 1262) [2C] | U | 9.3 | ug/kg dry | | U | | 16.1-145 | | 34.4 | U |
| PCB-1268 (Aroclor 1268) | 129.39 | 9.3 | " | 186.78 | U | 69.3 | 16.1-145 | 2.54 | 34.4 | |
| PCB-1268 (Aroclor 1268) [2C] | 142.54 | 9.3 | " | 186.78 | U | 76.3 | 16.1-145 | 0.235 | 34.4 | |

MRL Verification (1708092-PS1)

Prepared: 08/28/17 Analyzed: 09/01/17

EPA 8082

| | | | | | | | | | | |
|------------------------------|--------|-----|-----------|--------|--|------|----------|--|--|-------------|
| PCB-1016 (Aroclor 1016) | U | 8.3 | ug/kg dry | | | | 26.6-158 | | | U |
| PCB-1016 (Aroclor 1016) [2C] | U | 8.3 | " | | | | 26.6-158 | | | U |
| PCB-1221 (Aroclor 1221) | U | 17 | " | | | | 26.6-158 | | | U |
| PCB-1221 (Aroclor 1221) [2C] | U | 17 | " | | | | 26.6-158 | | | U |
| PCB-1232 (Aroclor 1232) | U | 8.3 | " | | | | 26.6-158 | | | U |
| PCB-1232 (Aroclor 1232) [2C] | U | 8.3 | " | | | | 26.6-158 | | | U |
| PCB-1242 (Aroclor 1242) | 8.2653 | 8.3 | " | 8.3333 | | 99.2 | 26.6-158 | | | MRL-3, U |
| PCB-1242 (Aroclor 1242) [2C] | 9.9357 | 8.3 | " | 8.3333 | | 119 | 26.6-158 | | | MRL-3 |
| PCB-1248 (Aroclor 1248) | U | 8.3 | " | | | | 26.6-158 | | | U |
| PCB-1248 (Aroclor 1248) [2C] | U | 8.3 | " | | | | 26.6-158 | | | U |
| PCB-1254 (Aroclor 1254) | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1254 (Aroclor 1254) [2C] | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1260 (Aroclor 1260) | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1260 (Aroclor 1260) [2C] | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1262 (Aroclor 1262) | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1262 (Aroclor 1262) [2C] | U | 8.3 | " | | | | 32-154 | | | U |
| PCB-1268 (Aroclor 1268) | 5.5673 | 8.3 | " | 8.3333 | | 66.8 | 32-154 | | | MRL-3, U |
| PCB-1268 (Aroclor 1268) [2C] | 7.8130 | 8.3 | " | 8.3333 | | 93.8 | 32-154 | | | MRL-3, U |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Jason Collum

Notes and Definitions for QC Samples

U The analyte was not detected at or above the reporting limit.

MRL-3 MRL verification for Soil matrix



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

September 18, 2017

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 17-0516, Cheraw Riverside Dump
Superfund Remedial

FROM: Terri White
ICS Analyst

THRU: Floyd Wellborn, Chief
ASB Inorganic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

| Analyses Included in this report: | Method Used: | Accreditations: |
|------------------------------------|------------------|-----------------|
| Physical Properties (PHYSP) | | |
| Physical Properties | EPA 200.2 (Soil) | ISO |
| Total Metals (TMTL) | | |
| Total Metals | EPA 200.8 (Soil) | ISO |
| Total Metals | EPA 6010 (Soil) | ISO |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Report Narrative for Project: 17-0516q Analysis: TMTL

09/15/17 TW Total mercury results reported by method 200.8 may not include the entirety of the organic mercury fraction.

Sample Disposal Policy

Due to limited space for long term sample storage, ASB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

cc: Nardina Turner



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

SAMPLES INCLUDED IN THIS REPORT

Project: 17-0516, Cheraw Riverside Dump

| Sample ID | Laboratory ID | Matrix | Date Collected | Date Received |
|-----------|---------------|--------------|----------------|---------------|
| CR-001-SD | E173403-01 | Sediment | 8/23/17 12:25 | 8/24/17 10:10 |
| CR-002-SD | E173403-02 | Sediment | 8/23/17 12:42 | 8/24/17 10:10 |
| CR-003-SD | E173403-03 | Sediment | 8/23/17 12:00 | 8/24/17 10:10 |
| CR-004-SD | E173403-04 | Sediment | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-005-SF | E173403-05 | Surface Soil | 8/23/17 11:25 | 8/24/17 10:10 |
| CR-006-SF | E173403-06 | Surface Soil | 8/23/17 11:06 | 8/24/17 10:10 |
| CR-007-SF | E173403-07 | Surface Soil | 8/23/17 11:20 | 8/24/17 10:10 |
| CR-008-SF | E173403-08 | Surface Soil | 8/23/17 11:45 | 8/24/17 10:10 |
| CR-009-SF | E173403-09 | Surface Soil | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-010-SF | E173403-10 | Surface Soil | 8/23/17 11:50 | 8/24/17 10:10 |
| CR-011-SF | E173403-11 | Surface Soil | 8/23/17 12:15 | 8/24/17 10:10 |
| CR-012-SD | E173403-12 | Sediment | 8/23/17 12:20 | 8/24/17 10:10 |
| CR-013-SF | E173403-13 | Surface Soil | 8/23/17 12:50 | 8/24/17 10:10 |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

DATA QUALIFIER DEFINITIONS

| | |
|------|---|
| U | The analyte was not detected at or above the reporting limit. |
| B-2 | Reporting level elevated due to trace amounts of analyte present in the method blank. |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| OM-1 | Matrix Spike Recovery less than method control limits |
| OM-3 | Matrix Spike Precision outside method control limits |
| OR-2 | MRL verification recovery greater than upper control limits. |

ACRONYMS AND ABBREVIATIONS

| | |
|-----|---|
| CAS | Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory. |
| MDL | Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero. |
| MRL | Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. |
| TIC | Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported. |

ACCREDITATIONS:

| | |
|-----|--|
| ISO | ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board. Refer to the certificate and scope of accreditation AT-1644 at: http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd |
| NR | The EPA Region 4 Laboratory has not requested accreditation for this test. |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-001-SD

Lab ID: E173403-01

Station ID: CR001

Matrix: Sediment

Date Collected: 8/23/17 12:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------------|-----------|------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 8400 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U, J, QM-1, QM-3 | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7440-38-2 | Arsenic | 3.2 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7440-39-3 | Barium | 76 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.60 | U | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.10 | | mg/kg dry | 0.10 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7440-70-2 | Calcium | 660 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-47-3 | Chromium | 24 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-48-4 | Cobalt | 8.5 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-50-8 | Copper | 12 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7439-89-6 | Iron | 23000 | J, QM-1 | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7439-92-1 | Lead | 18 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1100 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7439-96-5 | Manganese | 970 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7439-97-6 | Mercury | 0.10 | U, B-2 | mg/kg dry | 0.10 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U, J, QM-1 | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-02-0 | Nickel | 5.5 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-09-7 | Potassium | 570 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7440-22-4 | Silver | 1.0 | U | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-24-6 | Strontium | 8.4 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:31 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-32-6 | Titanium | 150 | J, QM-1 | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-62-2 | Vanadium | 36 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-65-5 | Yttrium | 7.9 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |
| 7440-66-6 | Zinc | 29 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:45 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-001-SD

Lab ID: E173403-01

Station ID: CR001

Matrix: Sediment

Date Collected: 8/23/17 12:25

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 68 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-002-SD

Lab ID: E173403-02

Station ID: CR002

Matrix: Sediment

Date Collected: 8/23/17 12:42

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 7800 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.6 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7440-39-3 | Barium | 100 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.60 | U | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.15 | | mg/kg dry | 0.10 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7440-70-2 | Calcium | 770 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-47-3 | Chromium | 16 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-48-4 | Cobalt | 9.3 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-50-8 | Copper | 27 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7439-89-6 | Iron | 16000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7439-92-1 | Lead | 22 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1800 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7439-96-5 | Manganese | 700 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7439-97-6 | Mercury | 0.088 | U, B-2 | mg/kg dry | 0.088 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-02-0 | Nickel | 7.5 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-09-7 | Potassium | 1000 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7782-49-2 | Selenium | 0.59 | | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7440-22-4 | Silver | 1.0 | U | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-24-6 | Strontium | 8.7 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:44 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-32-6 | Titanium | 290 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-62-2 | Vanadium | 28 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-65-5 | Yttrium | 10 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |
| 7440-66-6 | Zinc | 61 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:53 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-002-SD

Lab ID: E173403-02

Station ID: CR002

Matrix: Sediment

Date Collected: 8/23/17 12:42

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 65 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-003-SD

Lab ID: E173403-03

Station ID: CR003

Matrix: Sediment

Date Collected: 8/23/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 11000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.0 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7440-39-3 | Barium | 97 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.60 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.14 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7440-70-2 | Calcium | 980 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-47-3 | Chromium | 18 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-48-4 | Cobalt | 9.2 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-50-8 | Copper | 17 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7439-89-6 | Iron | 18000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7439-92-1 | Lead | 32 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1800 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7439-96-5 | Manganese | 680 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7439-97-6 | Mercury | 0.12 | U, B-2 | mg/kg dry | 0.12 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-02-0 | Nickel | 7.1 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-09-7 | Potassium | 920 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-24-6 | Strontium | 10 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 13:48 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-32-6 | Titanium | 290 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-62-2 | Vanadium | 35 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-65-5 | Yttrium | 12 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |
| 7440-66-6 | Zinc | 62 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 15:56 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-003-SD

Lab ID: E173403-03

Station ID: CR003

Matrix: Sediment

Date Collected: 8/23/17 12:00

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 84 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-004-SD

Lab ID: E173403-04

Station ID: CR004

Matrix: Sediment

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 11000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.8 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7440-39-3 | Barium | 100 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.59 | U | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.27 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7440-70-2 | Calcium | 940 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-47-3 | Chromium | 23 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-48-4 | Cobalt | 11 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-50-8 | Copper | 17 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7439-89-6 | Iron | 20000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7439-92-1 | Lead | 21 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1700 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7439-96-5 | Manganese | 1400 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7439-97-6 | Mercury | 0.087 | U, B-2 | mg/kg dry | 0.087 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-02-0 | Nickel | 8.1 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-09-7 | Potassium | 770 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-24-6 | Strontium | 9.1 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:01 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-32-6 | Titanium | 190 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-62-2 | Vanadium | 36 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-65-5 | Yttrium | 10 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |
| 7440-66-6 | Zinc | 57 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:01 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-004-SD

Lab ID: E173403-04

Station ID: CR004

Matrix: Sediment

Date Collected: 8/23/17 11:40

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 75 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-005-SF

Lab ID: E173403-05

Station ID: CR005

Matrix: Surface Soil

Date Collected: 8/23/17 11:25

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 3100 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7440-38-2 | Arsenic | 2.1 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7440-39-3 | Barium | 67 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.59 | U | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.23 | | mg/kg dry | 0.098 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7440-70-2 | Calcium | 600 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-47-3 | Chromium | 4.0 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-48-4 | Cobalt | 0.98 | U | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-50-8 | Copper | 7.2 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7439-89-6 | Iron | 2800 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7439-92-1 | Lead | 54 | | mg/kg dry | 0.98 | 9/05/17 15:45 | 9/15/17 14:10 | EPA 200.8 |
| 7439-95-4 | Magnesium | 150 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7439-96-5 | Manganese | 240 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7439-97-6 | Mercury | 0.12 | U, B-2 | mg/kg dry | 0.12 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-02-0 | Nickel | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-09-7 | Potassium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7782-49-2 | Selenium | 0.39 | U | mg/kg dry | 0.39 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7440-22-4 | Silver | 0.98 | U | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-24-6 | Strontium | 5.4 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:06 | EPA 200.8 |
| 7440-31-5 | Tin | 3.2 | | mg/kg dry | 2.9 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-32-6 | Titanium | 29 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-62-2 | Vanadium | 4.4 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-65-5 | Yttrium | 2.2 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |
| 7440-66-6 | Zinc | 240 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:04 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-005-SF

Lab ID: E173403-05

Station ID: CR005

Matrix: Surface Soil

Date Collected: 8/23/17 11:25

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 97 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-006-SF

Lab ID: E173403-06

Station ID: CR006

Matrix: Surface Soil

Date Collected: 8/23/17 11:06

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 13000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7440-38-2 | Arsenic | 0.98 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7440-39-3 | Barium | 110 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.91 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.20 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7440-70-2 | Calcium | 2000 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-47-3 | Chromium | 22 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-48-4 | Cobalt | 13 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-50-8 | Copper | 20 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7439-89-6 | Iron | 21000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7439-92-1 | Lead | 29 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7439-95-4 | Magnesium | 3000 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7439-96-5 | Manganese | 1100 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7439-97-6 | Mercury | 0.079 | U | mg/kg dry | 0.079 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-02-0 | Nickel | 11 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-09-7 | Potassium | 840 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-24-6 | Strontium | 15 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:15 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-32-6 | Titanium | 240 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-62-2 | Vanadium | 37 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-65-5 | Yttrium | 19 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |
| 7440-66-6 | Zinc | 73 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:07 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-006-SF

Lab ID: E173403-06

Station ID: CR006

Matrix: Surface Soil

Date Collected: 8/23/17 11:06

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 82 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-007-SF

Lab ID: E173403-07

Station ID: CR007

Matrix: Surface Soil

Date Collected: 8/23/17 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 6500 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-36-0 | Antimony | 2.2 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7440-38-2 | Arsenic | 2.3 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7440-39-3 | Barium | 200 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.60 | U | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-43-9 | Cadmium | 1.7 | | mg/kg dry | 0.10 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7440-70-2 | Calcium | 6300 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-47-3 | Chromium | 12 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-48-4 | Cobalt | 2.3 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-50-8 | Copper | 57 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7439-89-6 | Iron | 7700 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7439-92-1 | Lead | 600 | | mg/kg dry | 5.0 | 9/05/17 15:45 | 9/15/17 14:23 | EPA 200.8 |
| 7439-95-4 | Magnesium | 790 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7439-96-5 | Manganese | 280 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7439-97-6 | Mercury | 0.15 | U, B-2 | mg/kg dry | 0.15 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-02-0 | Nickel | 6.5 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-09-7 | Potassium | 730 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7440-22-4 | Silver | 1.0 | U | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-24-6 | Strontium | 36 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:19 | EPA 200.8 |
| 7440-31-5 | Tin | 19 | | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-32-6 | Titanium | 79 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-62-2 | Vanadium | 12 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-65-5 | Yttrium | 3.2 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |
| 7440-66-6 | Zinc | 390 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:10 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-007-SF

Lab ID: E173403-07

Station ID: CR007

Matrix: Surface Soil

Date Collected: 8/23/17 11:20

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 89 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-008-SF

Lab ID: E173403-08

Station ID: CR008

Matrix: Surface Soil

Date Collected: 8/23/17 11:45

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 2700 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-36-0 | Antimony | 0.22 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.1 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7440-39-3 | Barium | 17 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.59 | U | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.27 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7440-70-2 | Calcium | 280 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-47-3 | Chromium | 5.9 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-48-4 | Cobalt | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-50-8 | Copper | 17 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7439-89-6 | Iron | 4600 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7439-92-1 | Lead | 220 | | mg/kg dry | 2.5 | 9/05/17 15:45 | 9/15/17 14:32 | EPA 200.8 |
| 7439-95-4 | Magnesium | 150 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7439-96-5 | Manganese | 62 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7439-97-6 | Mercury | 0.079 | U | mg/kg dry | 0.079 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-02-0 | Nickel | 2.0 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-09-7 | Potassium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-24-6 | Strontium | 2.5 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:28 | EPA 200.8 |
| 7440-31-5 | Tin | 5.1 | | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-32-6 | Titanium | 29 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-62-2 | Vanadium | 7.9 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-65-5 | Yttrium | 1.6 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |
| 7440-66-6 | Zinc | 52 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:12 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-008-SF

Lab ID: E173403-08

Station ID: CR008

Matrix: Surface Soil

Date Collected: 8/23/17 11:45

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 80 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-009-SF

Lab ID: E173403-09

Station ID: CR009

Matrix: Surface Soil

Date Collected: 8/23/17 11:40

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 11000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7440-38-2 | Arsenic | 0.90 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7440-39-3 | Barium | 120 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.86 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.10 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7440-70-2 | Calcium | 900 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-47-3 | Chromium | 18 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-48-4 | Cobalt | 11 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-50-8 | Copper | 19 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7439-89-6 | Iron | 18000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7439-92-1 | Lead | 97 | | mg/kg dry | 0.99 | 9/05/17 15:45 | 9/15/17 14:41 | EPA 200.8 |
| 7439-95-4 | Magnesium | 2600 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7439-96-5 | Manganese | 890 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7439-97-6 | Mercury | 0.12 | U, B-2 | mg/kg dry | 0.12 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-02-0 | Nickel | 9.2 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-09-7 | Potassium | 860 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-24-6 | Strontium | 10 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:37 | EPA 200.8 |
| 7440-31-5 | Tin | 4.6 | | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-32-6 | Titanium | 280 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-62-2 | Vanadium | 31 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-65-5 | Yttrium | 17 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |
| 7440-66-6 | Zinc | 66 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:28 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-009-SF

Lab ID: E173403-09

Station ID: CR009

Matrix: Surface Soil

Date Collected: 8/23/17 11:40

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 91 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-010-SF

Lab ID: E173403-10

Station ID: CR010

Matrix: Surface Soil

Date Collected: 8/23/17 11:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 4100 | | mg/kg dry | 9.8 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7440-38-2 | Arsenic | 0.92 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7440-39-3 | Barium | 5.0 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.30 | U | mg/kg dry | 0.30 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.098 | U | mg/kg dry | 0.098 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7440-70-2 | Calcium | 120 | | mg/kg dry | 25 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-47-3 | Chromium | 5.8 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-48-4 | Cobalt | 0.49 | U | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-50-8 | Copper | 1.4 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7439-89-6 | Iron | 4100 | | mg/kg dry | 9.8 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7439-92-1 | Lead | 4.4 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7439-95-4 | Magnesium | 51 | | mg/kg dry | 25 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7439-96-5 | Manganese | 8.1 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7439-97-6 | Mercury | 0.079 | U | mg/kg dry | 0.079 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 0.98 | U | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-02-0 | Nickel | 0.98 | U | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-09-7 | Potassium | 98 | U | mg/kg dry | 98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7782-49-2 | Selenium | 0.39 | U | mg/kg dry | 0.39 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7440-22-4 | Silver | 0.49 | U | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-23-5 | Sodium | 98 | U | mg/kg dry | 98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-24-6 | Strontium | 0.78 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:54 | EPA 200.8 |
| 7440-31-5 | Tin | 1.5 | U | mg/kg dry | 1.5 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-32-6 | Titanium | 24 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-62-2 | Vanadium | 11 | | mg/kg dry | 0.49 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-65-5 | Yttrium | 0.65 | | mg/kg dry | 0.30 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |
| 7440-66-6 | Zinc | 3.6 | | mg/kg dry | 0.98 | 9/05/17 15:43 | 9/08/17 16:31 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-010-SF

Lab ID: E173403-10

Station ID: CR010

Matrix: Surface Soil

Date Collected: 8/23/17 11:50

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 93 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-011-SF

Lab ID: E173403-11

Station ID: CR011

Matrix: Surface Soil

Date Collected: 8/23/17 12:15

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 12000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U, J, QM-1 | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.8 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7440-39-3 | Barium | 140 | J, QM-1 | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.66 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.46 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7440-70-2 | Calcium | 2200 | J, QM-1 | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-47-3 | Chromium | 21 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-48-4 | Cobalt | 11 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-50-8 | Copper | 44 | J, QM-1 | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7439-89-6 | Iron | 30000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7439-92-1 | Lead | 65 | | mg/kg dry | 0.99 | 9/05/17 15:45 | 9/15/17 15:03 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1900 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7439-96-5 | Manganese | 910 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7439-97-6 | Mercury | 0.13 | U, B-2 | mg/kg dry | 0.13 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U, J, QM-1 | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-02-0 | Nickel | 12 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-09-7 | Potassium | 640 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U, J, QM-1 | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-24-6 | Strontium | 19 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 14:59 | EPA 200.8 |
| 7440-31-5 | Tin | 4.1 | J, QM-3 | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-32-6 | Titanium | 170 | J, QM-1 | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-62-2 | Vanadium | 36 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-65-5 | Yttrium | 13 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |
| 7440-66-6 | Zinc | 150 | J, QM-1 | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:33 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-011-SF

Lab ID: E173403-11

Station ID: CR011

Matrix: Surface Soil

Date Collected: 8/23/17 12:15

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 88 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-012-SD

Lab ID: E173403-12

Station ID: CR012

Matrix: Sediment

Date Collected: 8/23/17 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 16000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7440-38-2 | Arsenic | 2.2 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7440-39-3 | Barium | 200 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.89 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.57 | | mg/kg dry | 0.10 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7440-70-2 | Calcium | 1300 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-47-3 | Chromium | 30 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-48-4 | Cobalt | 7.0 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-50-8 | Copper | 47 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7439-89-6 | Iron | 15000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7439-92-1 | Lead | 110 | | mg/kg dry | 1.0 | 9/05/17 15:45 | 9/15/17 15:21 | EPA 200.8 |
| 7439-95-4 | Magnesium | 2200 | | mg/kg dry | 50 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7439-96-5 | Manganese | 180 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7439-97-6 | Mercury | 0.26 | J, QR-2 | mg/kg dry | 0.080 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-02-0 | Nickel | 12 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-09-7 | Potassium | 810 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7782-49-2 | Selenium | 0.55 | | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7440-22-4 | Silver | 1.0 | U | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-24-6 | Strontium | 13 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:16 | EPA 200.8 |
| 7440-31-5 | Tin | 6.0 | | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-32-6 | Titanium | 160 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-62-2 | Vanadium | 43 | | mg/kg dry | 1.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-65-5 | Yttrium | 15 | | mg/kg dry | 0.60 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |
| 7440-66-6 | Zinc | 150 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:42 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-012-SD

Lab ID: E173403-12

Station ID: CR012

Matrix: Sediment

Date Collected: 8/23/17 12:20

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 65 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-013-SF

Lab ID: E173403-13

Station ID: CR013

Matrix: Surface Soil

Date Collected: 8/23/17 12:50

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|------------|---------|------------|-----------|-------|---------------|---------------|-----------|
| 7429-90-5 | Aluminum | 12000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-36-0 | Antimony | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7440-38-2 | Arsenic | 1.6 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7440-39-3 | Barium | 82 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-41-7 | Beryllium | 0.63 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-43-9 | Cadmium | 0.16 | | mg/kg dry | 0.099 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7440-70-2 | Calcium | 640 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-47-3 | Chromium | 31 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-48-4 | Cobalt | 10 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-50-8 | Copper | 20 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7439-89-6 | Iron | 22000 | | mg/kg dry | 20 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7439-92-1 | Lead | 26 | | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7439-95-4 | Magnesium | 1700 | | mg/kg dry | 49 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7439-96-5 | Manganese | 940 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7439-97-6 | Mercury | 0.37 | J, QR-2 | mg/kg dry | 0.079 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7439-98-7 | Molybdenum | 2.0 | U | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-02-0 | Nickel | 7.2 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-09-7 | Potassium | 680 | | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7782-49-2 | Selenium | 0.40 | U | mg/kg dry | 0.40 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7440-22-4 | Silver | 0.99 | U | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-23-5 | Sodium | 200 | U | mg/kg dry | 200 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-24-6 | Strontium | 5.7 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-28-0 | Thallium | 0.20 | U | mg/kg dry | 0.20 | 9/05/17 15:45 | 9/15/17 15:25 | EPA 200.8 |
| 7440-31-5 | Tin | 3.0 | U | mg/kg dry | 3.0 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-32-6 | Titanium | 160 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-62-2 | Vanadium | 40 | | mg/kg dry | 0.99 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-65-5 | Yttrium | 12 | | mg/kg dry | 0.59 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |
| 7440-66-6 | Zinc | 44 | | mg/kg dry | 2.0 | 9/05/17 15:43 | 9/08/17 16:44 | EPA 6010 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR-013-SF

Lab ID: E173403-13

Station ID: CR013

Matrix: Surface Soil

Date Collected: 8/23/17 12:50

| <i>CAS Number</i> | <i>Analyte</i> | <i>Results</i> | <i>Qualifiers</i> | <i>Units</i> | <i>MRL</i> | <i>Prepared</i> | <i>Analyzed</i> | <i>Method</i> |
|-----------------------|----------------|----------------|-------------------|--------------|------------|------------------|------------------|---------------|
| E1642941 | % Solids | 63 | | % | 0.0 | 8/30/17 12:33 | 9/01/17 10:50 | EPA 200.2 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1709009 - M 200.2 Metals Soil

Blank (1709009-BLK1)

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|---|------|-----------|--|--|--|--|--|--|---|
| Aluminum | U | 10 | mg/kg dry | | | | | | | U |
| Barium | U | 0.50 | " | | | | | | | U |
| Beryllium | U | 0.30 | " | | | | | | | U |
| Calcium | U | 25 | " | | | | | | | U |
| Chromium | U | 0.50 | " | | | | | | | U |
| Cobalt | U | 0.50 | " | | | | | | | U |
| Copper | U | 1.0 | " | | | | | | | U |
| Iron | U | 10 | " | | | | | | | U |
| Magnesium | U | 25 | " | | | | | | | U |
| Manganese | U | 0.50 | " | | | | | | | U |
| Molybdenum | U | 1.0 | " | | | | | | | U |
| Nickel | U | 1.0 | " | | | | | | | U |
| Potassium | U | 100 | " | | | | | | | U |
| Silver | U | 0.50 | " | | | | | | | U |
| Sodium | U | 100 | " | | | | | | | U |
| Strontium | U | 0.50 | " | | | | | | | U |
| Tin | U | 1.5 | " | | | | | | | U |
| Titanium | U | 0.50 | " | | | | | | | U |
| Vanadium | U | 0.50 | " | | | | | | | U |
| Yttrium | U | 0.30 | " | | | | | | | U |
| Zinc | U | 1.0 | " | | | | | | | U |

Blank (1709009-BLK2)

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|---|------|-----------|--|--|--|--|--|--|---|
| Aluminum | U | 10 | mg/kg dry | | | | | | | U |
| Barium | U | 0.50 | " | | | | | | | U |
| Beryllium | U | 0.30 | " | | | | | | | U |
| Calcium | U | 25 | " | | | | | | | U |
| Chromium | U | 0.50 | " | | | | | | | U |
| Cobalt | U | 0.50 | " | | | | | | | U |
| Copper | U | 1.0 | " | | | | | | | U |
| Iron | U | 10 | " | | | | | | | U |
| Magnesium | U | 25 | " | | | | | | | U |
| Manganese | U | 0.50 | " | | | | | | | U |
| Molybdenum | U | 1.0 | " | | | | | | | U |
| Nickel | U | 1.0 | " | | | | | | | U |
| Potassium | U | 100 | " | | | | | | | U |
| Silver | U | 0.50 | " | | | | | | | U |
| Sodium | U | 100 | " | | | | | | | U |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1709009 - M 200.2 Metals Soil

Blank (1709009-BLK2)

Prepared: 09/05/17 Analyzed: 09/08/17

| | | | | | | | | | | |
|-----------|---|------|-----------|--|--|--|--|--|--|---|
| Strontium | U | 0.50 | mg/kg dry | | | | | | | U |
| Tin | U | 1.5 | " | | | | | | | U |
| Titanium | U | 0.50 | " | | | | | | | U |
| Vanadium | U | 0.50 | " | | | | | | | U |
| Yttrium | U | 0.30 | " | | | | | | | U |
| Zinc | U | 1.0 | " | | | | | | | U |

LCS (1709009-BS1)

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | |
|------------|--------|------|-----------|--------|--|------|--------|
| Aluminum | 499.29 | 10 | mg/kg dry | 500.00 | | 99.9 | 85-115 |
| Barium | 48.347 | 0.50 | " | 50.000 | | 96.7 | 85-115 |
| Beryllium | 18.930 | 0.30 | " | 20.000 | | 94.6 | 85-115 |
| Calcium | 480.13 | 25 | " | 500.00 | | 96.0 | 85-115 |
| Chromium | 46.564 | 0.50 | " | 50.000 | | 93.1 | 85-115 |
| Cobalt | 47.179 | 0.50 | " | 50.000 | | 94.4 | 85-115 |
| Copper | 32.161 | 1.0 | " | 30.000 | | 107 | 85-115 |
| Iron | 485.65 | 10 | " | 500.00 | | 97.1 | 85-115 |
| Magnesium | 505.89 | 25 | " | 500.00 | | 101 | 85-115 |
| Manganese | 498.19 | 0.50 | " | 500.00 | | 99.6 | 85-115 |
| Molybdenum | 30.238 | 1.0 | " | 30.000 | | 101 | 85-115 |
| Nickel | 75.157 | 1.0 | " | 80.000 | | 93.9 | 85-115 |
| Potassium | 990.23 | 100 | " | 1000.0 | | 99.0 | 85-115 |
| Silver | 9.6434 | 0.50 | " | 10.000 | | 96.4 | 85-115 |
| Sodium | 1006.3 | 100 | " | 1000.0 | | 101 | 85-115 |
| Strontium | 39.338 | 0.50 | " | 40.000 | | 98.3 | 85-115 |
| Tin | 92.506 | 1.5 | " | 100.00 | | 92.5 | 85-115 |
| Titanium | 49.068 | 0.50 | " | 50.000 | | 98.1 | 85-115 |
| Vanadium | 38.516 | 0.50 | " | 40.000 | | 96.3 | 85-115 |
| Yttrium | 30.097 | 0.30 | " | 30.000 | | 100 | 85-115 |
| Zinc | 94.851 | 1.0 | " | 100.00 | | 94.9 | 85-115 |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1709009 - M 200.2 Metals Soil

Matrix Spike (1709009-MS1)

Source: E173403-01

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|--------|------|-----------|--------|---------|-------|--------|--|--|------|
| Aluminum | 9038.9 | 20 | mg/kg dry | 497.61 | 8382.5 | 132 | 75-125 | | | XM-1 |
| Barium | 123.92 | 1.0 | " | 49.761 | 75.782 | 96.7 | 75-125 | | | |
| Beryllium | 18.853 | 0.60 | " | 19.904 | 0.39744 | 92.7 | 75-125 | | | |
| Calcium | 1104.8 | 50 | " | 497.61 | 660.03 | 89.4 | 75-125 | | | |
| Chromium | 66.555 | 1.0 | " | 49.761 | 23.831 | 85.9 | 75-125 | | | |
| Cobalt | 54.711 | 1.0 | " | 49.761 | 8.4732 | 92.9 | 75-125 | | | |
| Copper | 43.467 | 2.0 | " | 29.857 | 11.686 | 106 | 75-125 | | | |
| Iron | 23116 | 20 | " | 497.61 | 23314 | -39.8 | 75-125 | | | QM-1 |
| Magnesium | 1595.7 | 50 | " | 497.61 | 1124.8 | 94.7 | 75-125 | | | |
| Manganese | 1443.9 | 1.0 | " | 497.61 | 973.96 | 94.4 | 75-125 | | | |
| Molybdenum | 19.833 | 2.0 | " | 29.857 | 0.21458 | 65.7 | 75-125 | | | QM-1 |
| Nickel | 75.070 | 2.0 | " | 79.618 | 5.4584 | 87.4 | 75-125 | | | |
| Potassium | 1495.4 | 200 | " | 995.22 | 568.65 | 93.1 | 75-125 | | | |
| Silver | 9.7113 | 1.0 | " | 9.9522 | 0.23528 | 95.2 | 75-125 | | | |
| Sodium | 1024.6 | 200 | " | 995.22 | 31.807 | 99.8 | 75-125 | | | |
| Strontium | 46.873 | 1.0 | " | 39.809 | 8.3908 | 96.7 | 75-125 | | | |
| Tin | 81.146 | 3.0 | " | 99.522 | U | 81.5 | 75-125 | | | |
| Titanium | 179.55 | 1.0 | " | 49.761 | 146.86 | 65.7 | 75-125 | | | QM-1 |
| Vanadium | 70.542 | 1.0 | " | 39.809 | 35.685 | 87.6 | 75-125 | | | |
| Yttrium | 36.032 | 0.60 | " | 29.857 | 7.8549 | 94.4 | 75-125 | | | |
| Zinc | 115.63 | 2.0 | " | 99.522 | 28.616 | 87.4 | 75-125 | | | |

Matrix Spike (1709009-MS2)

Source: E173403-11

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|--------|------|-----------|--------|---------|-------|--------|--|--|------|
| Aluminum | 12929 | 20 | mg/kg dry | 499.10 | 12220 | 142 | 75-125 | | | XM-1 |
| Barium | 186.82 | 1.0 | " | 49.910 | 140.91 | 92.0 | 75-125 | | | |
| Beryllium | 19.438 | 0.60 | " | 19.964 | 0.65634 | 94.1 | 75-125 | | | |
| Calcium | 2732.1 | 50 | " | 499.10 | 2219.2 | 103 | 75-125 | | | |
| Chromium | 64.139 | 1.0 | " | 49.910 | 21.275 | 85.9 | 75-125 | | | |
| Cobalt | 54.708 | 1.0 | " | 49.910 | 11.455 | 86.7 | 75-125 | | | |
| Copper | 63.782 | 2.0 | " | 29.946 | 44.163 | 65.5 | 75-125 | | | QM-1 |
| Iron | 21446 | 20 | " | 499.10 | 30340 | -1780 | 75-125 | | | XM-1 |
| Magnesium | 2509.2 | 50 | " | 499.10 | 1917.9 | 118 | 75-125 | | | |
| Manganese | 1358.8 | 1.0 | " | 499.10 | 913.65 | 89.2 | 75-125 | | | |
| Molybdenum | 16.482 | 2.0 | " | 29.946 | 0.30866 | 54.0 | 75-125 | | | QM-1 |
| Nickel | 79.703 | 2.0 | " | 79.856 | 12.392 | 84.3 | 75-125 | | | |
| Potassium | 1597.3 | 200 | " | 998.20 | 644.40 | 95.5 | 75-125 | | | |
| Silver | 9.7252 | 1.0 | " | 9.9820 | 0.59225 | 91.5 | 75-125 | | | |
| Sodium | 997.64 | 200 | " | 998.20 | 38.636 | 96.1 | 75-125 | | | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1709009 - M 200.2 Metals Soil

| Matrix Spike (1709009-MS2) | | Source: E173403-11 | | Prepared: 09/05/17 Analyzed: 09/08/17 | | | | | | |
|----------------------------|--------|--------------------|-----------|---------------------------------------|--------|------|--------|--|--|------|
| Strontium | 57.181 | 1.0 | mg/kg dry | 39.928 | 18.909 | 95.9 | 75-125 | | | |
| Tin | 80.114 | 3.0 | " | 99.820 | 4.0761 | 76.2 | 75-125 | | | QM-3 |
| Titanium | 210.93 | 1.0 | " | 49.910 | 174.79 | 72.4 | 75-125 | | | QM-1 |
| Vanadium | 72.555 | 1.0 | " | 39.928 | 36.471 | 90.4 | 75-125 | | | |
| Yttrium | 41.612 | 0.60 | " | 29.946 | 12.812 | 96.2 | 75-125 | | | |
| Zinc | 226.82 | 2.0 | " | 99.820 | 148.24 | 78.7 | 75-125 | | | |

| Matrix Spike Dup (1709009-MSD1) | | | Source: E173403-01 | | Prepared: 09/05/17 Analyzed: 09/08/17 | | | | | |
|---------------------------------|--------|------|--------------------|--------|---------------------------------------|------|--------|--------|----|------|
| EPA 6010 | | | | | | | | | | |
| Aluminum | 8514.6 | 20 | mg/kg dry | 496.62 | 8382.5 | 26.6 | 75-125 | 5.97 | 20 | XM-1 |
| Barium | 122.63 | 0.99 | " | 49.662 | 75.782 | 94.3 | 75-125 | 1.05 | 20 | |
| Beryllium | 18.839 | 0.60 | " | 19.865 | 0.39744 | 92.8 | 75-125 | 0.0783 | 20 | |
| Calcium | 1101.0 | 50 | " | 496.62 | 660.03 | 88.8 | 75-125 | 0.344 | 20 | |
| Chromium | 66.237 | 0.99 | " | 49.662 | 23.831 | 85.4 | 75-125 | 0.478 | 20 | QM-1 |
| Cobalt | 54.867 | 0.99 | " | 49.662 | 8.4732 | 93.4 | 75-125 | 0.285 | 20 | |
| Copper | 43.018 | 2.0 | " | 29.797 | 11.686 | 105 | 75-125 | 1.04 | 20 | |
| Iron | 22760 | 20 | " | 496.62 | 23314 | -111 | 75-125 | 1.55 | 20 | |
| Magnesium | 1596.2 | 50 | " | 496.62 | 1124.8 | 94.9 | 75-125 | 0.0283 | 20 | QM-1 |
| Manganese | 1474.7 | 0.99 | " | 496.62 | 973.96 | 101 | 75-125 | 2.11 | 20 | |
| Molybdenum | 18.731 | 2.0 | " | 29.797 | 0.21458 | 62.1 | 75-125 | 5.72 | 20 | |
| Nickel | 74.480 | 2.0 | " | 79.460 | 5.4584 | 86.9 | 75-125 | 0.790 | 20 | |
| Potassium | 1493.6 | 200 | " | 993.25 | 568.65 | 93.1 | 75-125 | 0.125 | 20 | QM-1 |
| Silver | 9.5663 | 0.99 | " | 9.9325 | 0.23528 | 93.9 | 75-125 | 1.50 | 20 | |
| Sodium | 1025.5 | 200 | " | 993.25 | 31.807 | 100 | 75-125 | 0.0895 | 20 | |
| Strontium | 46.557 | 0.99 | " | 39.730 | 8.3908 | 96.1 | 75-125 | 0.677 | 20 | |
| Tin | 80.329 | 3.0 | " | 99.325 | U | 80.9 | 75-125 | 1.01 | 20 | QM-1 |
| Titanium | 166.06 | 0.99 | " | 49.662 | 146.86 | 38.7 | 75-125 | 7.80 | 20 | |
| Vanadium | 69.004 | 0.99 | " | 39.730 | 35.685 | 83.9 | 75-125 | 2.20 | 20 | |
| Yttrium | 36.091 | 0.60 | " | 29.797 | 7.8549 | 94.8 | 75-125 | 0.165 | 20 | |
| Zinc | 116.50 | 2.0 | " | 99.325 | 28.616 | 88.5 | 75-125 | 0.747 | 20 | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1709009 - M 200.2 Metals Soil

Matrix Spike Dup (1709009-MSD2)

Source: E173403-11

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|--------|------|-----------|--------|---------|-------|--------|--------|----|------|
| Aluminum | 11087 | 20 | mg/kg dry | 497.12 | 12220 | -228 | 75-125 | 15.3 | 20 | XM-1 |
| Barium | 174.29 | 0.99 | " | 49.712 | 140.91 | 67.2 | 75-125 | 6.94 | 20 | QM-1 |
| Beryllium | 19.193 | 0.60 | " | 19.885 | 0.65634 | 93.2 | 75-125 | 1.27 | 20 | |
| Calcium | 2584.8 | 50 | " | 497.12 | 2219.2 | 73.5 | 75-125 | 5.54 | 20 | QM-1 |
| Chromium | 61.564 | 0.99 | " | 49.712 | 21.275 | 81.0 | 75-125 | 4.10 | 20 | |
| Cobalt | 53.286 | 0.99 | " | 49.712 | 11.455 | 84.1 | 75-125 | 2.63 | 20 | |
| Copper | 58.922 | 2.0 | " | 29.827 | 44.163 | 49.5 | 75-125 | 7.92 | 20 | QM-1 |
| Iron | 20840 | 20 | " | 497.12 | 30340 | -1910 | 75-125 | 2.87 | 20 | XM-1 |
| Magnesium | 2295.7 | 50 | " | 497.12 | 1917.9 | 76.0 | 75-125 | 8.88 | 20 | |
| Manganese | 1296.3 | 0.99 | " | 497.12 | 913.65 | 77.0 | 75-125 | 4.71 | 20 | |
| Molybdenum | 16.476 | 2.0 | " | 29.827 | 0.30866 | 54.2 | 75-125 | 0.0342 | 20 | QM-1 |
| Nickel | 78.490 | 2.0 | " | 79.539 | 12.392 | 83.1 | 75-125 | 1.53 | 20 | |
| Potassium | 1525.7 | 200 | " | 994.23 | 644.40 | 88.6 | 75-125 | 4.59 | 20 | |
| Silver | 9.7002 | 0.99 | " | 9.9423 | 0.59225 | 91.6 | 75-125 | 0.257 | 20 | |
| Sodium | 982.53 | 200 | " | 994.23 | 38.636 | 94.9 | 75-125 | 1.53 | 20 | |
| Strontium | 55.138 | 0.99 | " | 39.769 | 18.909 | 91.1 | 75-125 | 3.64 | 20 | |
| Tin | 118.14 | 3.0 | " | 99.423 | 4.0761 | 115 | 75-125 | 38.4 | 20 | QM-3 |
| Titanium | 201.04 | 0.99 | " | 49.712 | 174.79 | 52.8 | 75-125 | 4.80 | 20 | QM-1 |
| Vanadium | 67.157 | 0.99 | " | 39.769 | 36.471 | 77.2 | 75-125 | 7.73 | 20 | |
| Yttrium | 39.989 | 0.60 | " | 29.827 | 12.812 | 91.1 | 75-125 | 3.98 | 20 | |
| Zinc | 207.62 | 2.0 | " | 99.423 | 148.24 | 59.7 | 75-125 | 8.84 | 20 | QM-1 |

MRL Verification (1709009-PS1)

Prepared: 09/05/17 Analyzed: 09/08/17

EPA 6010

| | | | | | | | | | | |
|------------|---------|------|-----------|---------|--|------|--------|--|--|-------------|
| Aluminum | 10.559 | 10 | mg/kg dry | 10.000 | | 106 | 70-130 | | | MRL-3 |
| Barium | 0.45405 | 0.50 | " | 0.50000 | | 90.8 | 70-130 | | | MRL-3, U |
| Beryllium | 0.28519 | 0.30 | " | 0.30000 | | 95.1 | 70-130 | | | MRL-3, U |
| Calcium | 23.191 | 25 | " | 25.000 | | 92.8 | 70-130 | | | MRL-3, U |
| Chromium | 0.51978 | 0.50 | " | 0.50000 | | 104 | 70-130 | | | MRL-3 |
| Cobalt | 0.50454 | 0.50 | " | 0.50000 | | 101 | 70-130 | | | MRL-3 |
| Copper | 1.0673 | 1.0 | " | 1.0000 | | 107 | 70-130 | | | MRL-3 |
| Iron | 10.156 | 10 | " | 10.000 | | 102 | 70-130 | | | MRL-3 |
| Magnesium | 25.766 | 25 | " | 25.000 | | 103 | 70-130 | | | MRL-3 |
| Manganese | 0.55672 | 0.50 | " | 0.50000 | | 111 | 70-130 | | | MRL-3 |
| Molybdenum | 0.98698 | 1.0 | " | 1.0000 | | 98.7 | 70-130 | | | MRL-3, U |
| Nickel | 0.94194 | 1.0 | " | 1.0000 | | 94.2 | 70-130 | | | MRL-3, U |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1709009 - M 200.2 Metals Soil

MRL Verification (1709009-PS1)

Prepared: 09/05/17 Analyzed: 09/08/17

| | | | | | | | | | | |
|-----------|---------|------|-----------|---------|--|------|--------|--|--|-------------|
| Potassium | 97.880 | 100 | mg/kg dry | 100.00 | | 97.9 | 70-130 | | | MRL-3, U |
| Silver | 0.52198 | 0.50 | " | 0.50000 | | 104 | 70-130 | | | MRL-3 |
| Sodium | 105.05 | 100 | " | 100.00 | | 105 | 70-130 | | | MRL-3 |
| Strontium | 0.50878 | 0.50 | " | 0.50000 | | 102 | 70-130 | | | MRL-3 |
| Tin | 1.3466 | 1.5 | " | 1.5000 | | 89.8 | 70-130 | | | MRL-3, U |
| Titanium | 0.53061 | 0.50 | " | 0.50000 | | 106 | 70-130 | | | MRL-3 |
| Vanadium | 0.51594 | 0.50 | " | 0.50000 | | 103 | 70-130 | | | MRL-3 |
| Yttrium | 0.31765 | 0.30 | " | 0.30000 | | 106 | 70-130 | | | MRL-3 |
| Zinc | 0.96718 | 1.0 | " | 1.0000 | | 96.7 | 70-130 | | | MRL-3, U |

Batch 1709010 - M 200.2 Metals Soil

Blank (1709010-BLK1)

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|---|-------|-----------|--|--|--|--|--|--|--------|
| Antimony | U | 0.10 | mg/kg dry | | | | | | | U |
| Arsenic | U | 0.10 | " | | | | | | | U |
| Cadmium | U | 0.050 | " | | | | | | | U |
| Lead | U | 0.10 | " | | | | | | | U |
| Mercury | U | 0.040 | " | | | | | | | B-4, U |
| Selenium | U | 0.20 | " | | | | | | | U |
| Thallium | U | 0.10 | " | | | | | | | U |

Blank (1709010-BLK2)

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|---|-------|-----------|--|--|--|--|--|--|--------|
| Antimony | U | 0.10 | mg/kg dry | | | | | | | U |
| Arsenic | U | 0.10 | " | | | | | | | U |
| Cadmium | U | 0.050 | " | | | | | | | U |
| Lead | U | 0.10 | " | | | | | | | U |
| Mercury | U | 0.040 | " | | | | | | | B-4, U |
| Selenium | U | 0.20 | " | | | | | | | U |
| Thallium | U | 0.10 | " | | | | | | | U |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

Batch 1709010 - M 200.2 Metals Soil

LCS (1709010-BS1)

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|--------|------|-----------|--------|--|------|--------|--|--|--|
| Antimony | 93.842 | 1.2 | mg/kg dry | 100.00 | | 93.8 | 85-115 | | | |
| Arsenic | 49.100 | 1.2 | " | 50.000 | | 98.2 | 85-115 | | | |
| Cadmium | 19.519 | 0.62 | " | 20.000 | | 97.6 | 85-115 | | | |
| Lead | 105.28 | 1.2 | " | 100.00 | | 105 | 85-115 | | | |
| Mercury | 5.6909 | 0.50 | " | 5.0000 | | 114 | 85-115 | | | |
| Selenium | 96.662 | 2.5 | " | 100.00 | | 96.7 | 85-115 | | | |
| Thallium | 20.992 | 1.2 | " | 20.000 | | 105 | 85-115 | | | |

Matrix Spike (1709010-MS1)

Source: E173403-01

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|--------|------|-----------|--------|----------|------|--------|--|--|------|
| Antimony | 24.558 | 1.2 | mg/kg dry | 99.522 | 0.048945 | 24.7 | 70-130 | | | QM-1 |
| Arsenic | 44.459 | 1.2 | " | 49.761 | 3.2380 | 82.8 | 70-130 | | | |
| Cadmium | 20.174 | 0.62 | " | 19.904 | 0.10038 | 101 | 70-130 | | | |
| Lead | 120.73 | 1.2 | " | 99.522 | 17.523 | 104 | 70-130 | | | |
| Mercury | 5.8510 | 0.50 | " | 4.9761 | 0.099260 | 118 | 70-130 | | | |
| Selenium | 80.735 | 2.5 | " | 99.522 | 0.20159 | 81.1 | 70-130 | | | |
| Thallium | 20.585 | 1.2 | " | 19.904 | 0.097124 | 103 | 70-130 | | | |

Matrix Spike (1709010-MS2)

Source: E173403-11

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|--------|------|-----------|--------|----------|------|--------|--|--|------|
| Antimony | 13.790 | 1.2 | mg/kg dry | 99.820 | 0.091619 | 13.8 | 70-130 | | | QM-1 |
| Arsenic | 38.574 | 1.2 | " | 49.910 | 1.7670 | 73.7 | 70-130 | | | |
| Cadmium | 20.272 | 0.62 | " | 19.964 | 0.45884 | 99.2 | 70-130 | | | |
| Lead | 170.33 | 1.2 | " | 99.820 | 64.680 | 106 | 70-130 | | | |
| Mercury | 5.8279 | 0.50 | " | 4.9910 | 0.11756 | 117 | 70-130 | | | |
| Selenium | 66.070 | 2.5 | " | 99.820 | U | 66.2 | 70-130 | | | QM-1 |
| Thallium | 20.065 | 1.2 | " | 19.964 | 0.15923 | 99.7 | 70-130 | | | |

Matrix Spike Dup (1709010-MSD1)

Source: E173403-01

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|--------|------|-----------|--------|----------|------|--------|-------|----|------------|
| Antimony | 33.078 | 1.2 | mg/kg dry | 99.325 | 0.048945 | 33.3 | 70-130 | 29.6 | 20 | QM-1, QM-3 |
| Arsenic | 43.028 | 1.2 | " | 49.662 | 3.2380 | 80.1 | 70-130 | 3.27 | 20 | |
| Cadmium | 20.227 | 0.62 | " | 19.865 | 0.10038 | 102 | 70-130 | 0.263 | 20 | |
| Lead | 119.80 | 1.2 | " | 99.325 | 17.523 | 103 | 70-130 | 0.779 | 20 | |
| Mercury | 5.9771 | 0.50 | " | 4.9662 | 0.099260 | 120 | 70-130 | 2.13 | 20 | |
| Selenium | 72.941 | 2.5 | " | 99.325 | 0.20159 | 73.4 | 70-130 | 10.1 | 20 | |
| Thallium | 20.256 | 1.2 | " | 19.865 | 0.097124 | 102 | 70-130 | 1.61 | 20 | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1709010 - M 200.2 Metals Soil

Matrix Spike Dup (1709010-MSD1)

Source: E173403-01

Prepared: 09/05/17 Analyzed: 09/15/17

Matrix Spike Dup (1709010-MSD2)

Source: E173403-11

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|--------|------|-----------|--------|----------|------|--------|-------|----|------|
| Antimony | 16.687 | 1.2 | mg/kg dry | 99.423 | 0.091619 | 16.8 | 70-130 | 19.0 | 20 | QM-1 |
| Arsenic | 37.683 | 1.2 | " | 49.712 | 1.7670 | 72.2 | 70-130 | 2.34 | 20 | |
| Cadmium | 20.338 | 0.62 | " | 19.885 | 0.45884 | 100 | 70-130 | 0.324 | 20 | |
| Lead | 165.83 | 1.2 | " | 99.423 | 64.680 | 102 | 70-130 | 2.68 | 20 | |
| Mercury | 6.0196 | 0.50 | " | 4.9712 | 0.11756 | 121 | 70-130 | 3.24 | 20 | |
| Selenium | 61.031 | 2.5 | " | 99.423 | U | 61.4 | 70-130 | 7.93 | 20 | QM-1 |
| Thallium | 20.469 | 1.2 | " | 19.885 | 0.15923 | 102 | 70-130 | 1.99 | 20 | |

MRL Verification (1709010-PS1)

Prepared: 09/05/17 Analyzed: 09/15/17

EPA 200.8

| | | | | | | | | | | |
|----------|----------|-------|-----------|----------|--|------|--------|--|--|----------------|
| Antimony | 0.063735 | 0.10 | mg/kg dry | 0.050000 | | 127 | 65-135 | | | MRL-3, U |
| Arsenic | 0.10676 | 0.10 | " | 0.10000 | | 107 | 65-135 | | | MRL-3 |
| Cadmium | 0.047782 | 0.050 | " | 0.050000 | | 95.6 | 65-135 | | | MRL-3, U |
| Lead | 0.11381 | 0.10 | " | 0.10000 | | 114 | 65-135 | | | MRL-3 |
| Mercury | 0.13975 | 0.040 | " | 0.080000 | | 175 | 65-135 | | | QR-2, MRL-3 |
| Selenium | 0.18373 | 0.20 | " | 0.20000 | | 91.9 | 65-135 | | | MRL-3, U |
| Thallium | 0.054195 | 0.10 | " | 0.050000 | | 108 | 65-135 | | | MRL-3, U |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Terri White

Physical Properties (PHYSP) - Quality Control

US-EPA, Region 4, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 1708101 - M % Solids

Duplicate (1708101-DUP1)

Source: E173403-05

Prepared: 08/30/17 Analyzed: 09/01/17

EPA 200.2

| | | | | | | | | | | |
|----------|--------|-----|---|--|--------|--|--|-------|----|--|
| % Solids | 96.750 | 0.0 | % | | 96.887 | | | 0.142 | 10 | |
|----------|--------|-----|---|--|--------|--|--|-------|----|--|



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Notes and Definitions for QC Samples

| | |
|-------|--|
| U | The analyte was not detected at or above the reporting limit. |
| B-4 | Level in blank impacts MRLs. |
| MRL-3 | MRL verification for Soil matrix |
| QM-1 | Matrix Spike Recovery less than method control limits |
| QM-3 | Matrix Spike Precision outside method control limits |
| QR-2 | MRL verification recovery greater than upper control limits. |
| XM-1 | Sample background/spike ratio higher than method evaluation criteria |



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D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

September 19, 2017

9SESD4ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 17-0516, Cheraw Riverside Dump
Superfund Remedial

FROM: Diana Burdette
OCS Analyst

T- RU: Jeffrey Hendel, Chief
ASB Organic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Semi Volatile Organics (SVOA)

Semivolatile organic compounds

EPA 8270D (Soil)

ISO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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SHmpæ Dli p si Hho s dPc

Due to limited space for long term sample storage, ASB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.

cc: Nardina Turner



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Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

SAMox ES INCx UDED IN T- IS REoORT

orsIePt: 1740j 15, C6erHh Rlyerilve Dwmp

| SHmpæ ID | x HbsrHsrc ID | MHrld | DHe CsæPtev | DHe RePelyev |
|-----------|---------------|--------------|---------------|---------------|
| CR-001-SD | E173403-01 | Sediment | 8/23/17 12:25 | 8/24/17 10:10 |
| CR-002-SD | E173403-02 | Sediment | 8/23/17 12:42 | 8/24/17 10:10 |
| CR-003-SD | E173403-03 | Sediment | 8/23/17 12:00 | 8/24/17 10:10 |
| CR-004-SD | E173403-04 | Sediment | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-005-SF | E173403-05 | Surface Soil | 8/23/17 11:25 | 8/24/17 10:10 |
| CR-006-SF | E173403-06 | Surface Soil | 8/23/17 11:06 | 8/24/17 10:10 |
| CR-007-SF | E173403-07 | Surface Soil | 8/23/17 11:20 | 8/24/17 10:10 |
| CR-008-SF | E173403-08 | Surface Soil | 8/23/17 11:45 | 8/24/17 10:10 |
| CR-009-SF | E173403-09 | Surface Soil | 8/23/17 11:40 | 8/24/17 10:10 |
| CR-010-SF | E173403-10 | Surface Soil | 8/23/17 11:50 | 8/24/17 10:10 |
| CR-011-SF | E173403-11 | Surface Soil | 8/23/17 12:15 | 8/24/17 10:10 |
| CR-012-SD | E173403-12 | Sediment | 8/23/17 12:20 | 8/24/17 10:10 |
| CR-013-SF | E173403-13 | Surface Soil | 8/23/17 12:50 | 8/24/17 10:10 |



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Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

DATA QUALIFIER DEFINITIONS

| | |
|------|--|
| U | The analyte was not detected at or above the reporting limit. |
| H-1 | Recommended holding time exceeded |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| N | There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. |
| NJ | Presumptive evidence that analyte is present; reported as a tentative identification with an estimated value. |
| Q-2 | Result greater than MDL but less than MRL. |
| QM-6 | Matrix Spike Recovery less than 10% |
| QS-4 | Surrogate recovery less than 10% |
| R | The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable. |

ACRONYMS AND ABBREVIATIONS

| | |
|-----|---|
| CAS | Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory. |
| MDL | Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero. |
| MRL | Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. |
| TIC | Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported. |

ACCREDITATIONS:

| | |
|-----|--|
| ISO | ASB is accredited by ISO/IEC 17025, including an amplification for forensic accreditation through ANSI-ASQ National Accreditation Board. Refer to the certificate and scope of accreditation AT-1644 at: http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd |
| NR | The EPA Region 4 Laboratory has not requested accreditation for this test. |



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D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4014SD

Lab ID: E17n90n401

Site ID: CR001

Method: Sevlmegt

Date: 3/28/17 12:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|-----------------|-----------|------|---------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 2900 | U, J, H-1, QS-4 | ug/kg dry | 2900 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 83-32-9 | Acenaphthene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |



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D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40014SD

Lab ID: E17n90n401

Site ID: CR001

Method: Sevlmet

Date Received: 3/28/17 12:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 98-86-2 | Acetophenone | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 120-12-7 | Anthracene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 1912-24-9 | Atrazine | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 105-60-2 | Caprolactam | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 86-74-8 | Carbazole | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 218-01-9 | Chrysene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 206-44-0 | Fluoranthene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 86-73-7 | Fluorene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40014SD

Lab ID: E17n90n401

StHsg ID: CR001

MHrid: Sevlmegt

DHe CsæPtev: 382n87 12:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|--|--------------------------------------|---------|-----------------|-----------|------|---------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 78-59-1 | Isophorone | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 91-20-3 | Naphthalene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 490 | U | ug/kg dry | 490 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 85-01-8 | Phenanthrene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| 108-95-2 | Phenol | 1400 | U, J, H-1, QS-4 | ug/kg dry | 1400 | 9/07/17 10:50 | 9/14/17 11:26 | EPA 8270D |
| 129-00-0 | Pyrene | 98 | U | ug/kg dry | 98 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 500 | U | ug/kg dry | 500 | 8/29/17 9:00 | 9/05/17 17:09 | EPA 8270D |



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Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40024SD

Lab ID: E17n90n402

StHsg ID: CR002

MHrld: Sevlmegt

DHe CsæPtev: 382n87 12:92

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|------|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 1000 | U | ug/kg dry | 1000 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 83-32-9 | Acenaphthene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40024SD

Lab ID: E17n90n402

Site ID: CR002

Method: Sevlmet

Date Sampled: 3/27/17 12:22

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 98-86-2 | Acetophenone | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 120-12-7 | Anthracene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 1912-24-9 | Atrazine | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 55 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 66 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 86 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 47 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 81 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 105-60-2 | Caprolactam | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 86-74-8 | Carbazole | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 218-01-9 | Chrysene | 93 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 206-44-0 | Fluoranthene | 190 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 86-73-7 | Fluorene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40024SD

Lab ID: E17n90n402

StHsg ID: CR002

MHrid: Sevlmegt

DHe CsæPtev: 382n87 12:92

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 44 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 78-59-1 | Isophorone | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 91-20-3 | Naphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 85-01-8 | Phenanthrene | 57 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 108-95-2 | Phenol | 510 | U | ug/kg dry | 510 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| 129-00-0 | Pyrene | 120 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |
| R4-6521 | Sitosterol (TIC) | 600 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 18:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 170115, C6erH Rlyerilve Dwmp

Sample ID: CR400n4SD

Lab ID: E17n90n40n

Site ID: CR00n

Method: Sevlmegt

Date Sampled: 3/28/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 800 | U | ug/kg dry | 800 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 83-32-9 | Acenaphthene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400n4SD

Lab ID: E17n90n40n

Field ID: CR00n

Method: Sevlmegt

Date Sampled: 3/28/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 98-86-2 | Acetophenone | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 120-12-7 | Anthracene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 1912-24-9 | Atrazine | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 33 | J, Q-2 | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 34 | J, Q-2 | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 105-60-2 | Caprolactam | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 86-74-8 | Carbazole | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 218-01-9 | Chrysene | 34 | J, Q-2 | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 206-44-0 | Fluoranthene | 55 | J, Q-2 | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 86-73-7 | Fluorene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400n4SD

Sample ID: E17n90n40n

Site ID: CR00n

Method: Sevlmegt

Date Sampled: 3/28/17 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 78-59-1 | Isophorone | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 91-20-3 | Naphthalene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 85-01-8 | Phenanthrene | 31 | J, Q-2 | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 108-95-2 | Phenol | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| 129-00-0 | Pyrene | 80 | U | ug/kg dry | 80 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 18:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4004SD

Lab ID: E17n90n409

StHsg ID: CR009

MHrld: Sevlmegt

DHe CsæPev: 382n87 11:90

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 900 | U | ug/kg dry | 900 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 83-32-9 | Acenaphthene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40094SD

Lab ID: E17n90n409

Field ID: CR009

Method: Sevlmegt

Date Sampled: 3/28/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 98-86-2 | Acetophenone | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 120-12-7 | Anthracene | 81 | J, Q-2 | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 1912-24-9 | Atrazine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 320 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 260 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 260 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 89 | J, Q-2 | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 270 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 105-60-2 | Caprolactam | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 86-74-8 | Carbazole | 35 | J, Q-2 | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 218-01-9 | Chrysene | 330 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 206-44-0 | Fluoranthene | 640 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 86-73-7 | Fluorene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40094SD

Sample ID: E17n90n409

Field ID: CR009

Method: Sevlmegt

Date Sampled: 8/29/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 110 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 78-59-1 | Isophorone | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 91-20-3 | Naphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 85-01-8 | Phenanthrene | 290 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 108-95-2 | Phenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| 129-00-0 | Pyrene | 460 | | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 19:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4014SF

Lab ID: E17n90n40j

Site ID: CR001j

Method: SW/HS SLA

Date Sampled: 3/28/17 11:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 690 | U | ug/kg dry | 690 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 83-32-9 | Acenaphthene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Location: 17015, C6erH Rlyerilve Dwmp

Sample ID: CR40j-4SF

Lab ID: E17n90n40j

Field ID: CR00j

Method: Sw/Hp Ssla

Date Sampled: 3/28/17 11:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 98-86-2 | Acetophenone | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 120-12-7 | Anthracene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 1912-24-9 | Atrazine | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 44 | J, Q-2 | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 56 | J, Q-2 | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 130 | | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 36 | J, Q-2 | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 82 | | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 105-60-2 | Caprolactam | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 86-74-8 | Carbazole | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 218-01-9 | Chrysene | 87 | | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 206-44-0 | Fluoranthene | 77 | | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 86-73-7 | Fluorene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400j-4SF

Lab ID: E17n90n40j

Field ID: CR000j

Method: SW/HS

Date: 8/29/17 11:2j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 40 | J, Q-2 | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 78-59-1 | Isophorone | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 91-20-3 | Naphthalene | 69 | U | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 85-01-8 | Phenanthrene | 27 | J, Q-2 | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 108-95-2 | Phenol | 350 | U | ug/kg dry | 350 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| 129-00-0 | Pyrene | 76 | | ug/kg dry | 69 | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-8000350 | Octadecadienoic acid, methyl ester (TIC) | 400 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 19:40 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40054SF

Lab ID: E17n90n405

StHsg ID: CR005

MHrld: Sw/HF Ssla

DHe CsæPtev: 382n87 11:05

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 820 | U | ug/kg dry | 820 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 83-32-9 | Acenaphthene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40054SF

Lab ID: E17n90n405

Field ID: CR005

Method: SW/HS

Date Sampled: 3/28/17 11:05

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 98-86-2 | Acetophenone | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 120-12-7 | Anthracene | 60 | J, Q-2 | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 1912-24-9 | Atrazine | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 180 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 160 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 160 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 79 | J, Q-2 | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 180 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 105-60-2 | Caprolactam | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 86-74-8 | Carbazole | 47 | J, Q-2 | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 218-01-9 | Chrysene | 190 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 36 | J, Q-2 | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 206-44-0 | Fluoranthene | 420 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 86-73-7 | Fluorene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40054SF

Lab ID: E17n90n405

Field ID: CR005

Method: SW/HS

Date Sampled: 8/29/17 11:05

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 80 | J, Q-2 | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 78-59-1 | Isophorone | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 91-20-3 | Naphthalene | 82 | U | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 85-01-8 | Phenanthrene | 240 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 108-95-2 | Phenol | 410 | U | ug/kg dry | 410 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| 129-00-0 | Pyrene | 310 | | ug/kg dry | 82 | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 20:10 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4007SF

Lab ID: E17n90n407

StHsg ID: CR007

MHrld: Sw/Hr Ssla

DHe CsæPtev: 38n87 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|------|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 1000 | U | ug/kg dry | 1000 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 83-32-9 | Acenaphthene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40074SF

Lab ID: E17n90n407

Field ID: CR007

Method: SW/HS

Date Received: 3/27/17 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 98-86-2 | Acetophenone | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 120-12-7 | Anthracene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 1912-24-9 | Atrazine | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 220 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 260 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 270 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 160 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 290 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 910 | | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 105-60-2 | Caprolactam | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 86-74-8 | Carbazole | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 218-01-9 | Chrysene | 270 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 48 | J, Q-2 | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 206-44-0 | Fluoranthene | 430 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 86-73-7 | Fluorene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40074SF

Lab ID: E17n90n407

Field ID: CR007

Method: SW/HS

Date: 8/29/17 11:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 150 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 78-59-1 | Isophorone | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 91-20-3 | Naphthalene | 100 | U | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 85-01-8 | Phenanthrene | 150 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 108-95-2 | Phenol | 520 | U | ug/kg dry | 520 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| 129-00-0 | Pyrene | 350 | | ug/kg dry | 100 | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-6534 | Octadecenoic Acid (TIC) | 600 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 16:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17015, C6erH Rlyerilve Dwmp

SHmpæ ID: CR4003SF

x Hb ID: E17n90n403

StHls ID: CR003

MHrld: Swr/Hæ Ssla

DHe CsæPev: 3&n&7 11:9j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 780 | U | ug/kg dry | 780 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 83-32-9 | Acenaphthene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4003-SF

Lab ID: E17n90n403

Field ID: CR003

Method: SW/HS

Date Sampled: 3/27/17 11:09

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 98-86-2 | Acetophenone | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 120-12-7 | Anthracene | 34 | J, Q-2 | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 1912-24-9 | Atrazine | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 260 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 250 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 310 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 170 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 280 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 105-60-2 | Caprolactam | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 86-74-8 | Carbazole | 41 | J, Q-2 | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 218-01-9 | Chrysene | 320 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 62 | J, Q-2 | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 206-44-0 | Fluoranthene | 610 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 86-73-7 | Fluorene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40034SF

Lab ID: E17n90n403

Field ID: CR003

Method: SW/HS

Date Received: 8/29/17 11:09

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 160 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 78-59-1 | Isophorone | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 91-20-3 | Naphthalene | 78 | U | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 85-01-8 | Phenanthrene | 220 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 108-95-2 | Phenol | 390 | U | ug/kg dry | 390 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| 129-00-0 | Pyrene | 510 | | ug/kg dry | 78 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 15:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400f4SF

Lab ID: E17n90n40f

StHsg ID: CR00f

MHrld: Sw/Hp Ssla

DHe CsæPtev: 382n87 11:90

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 740 | U | ug/kg dry | 740 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 370 | U, R, QM-6 | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 83-32-9 | Acenaphthene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400f4SF

Lab ID: E17n90n40f

Field ID: CR00f

Method: Sw/He Ssla

Date Sampled: 3/28/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 98-86-2 | Acetophenone | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 120-12-7 | Anthracene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 1912-24-9 | Atrazine | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 48 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 43 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 42 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 46 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 105-60-2 | Caprolactam | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 86-74-8 | Carbazole | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 218-01-9 | Chrysene | 55 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 206-44-0 | Fluoranthene | 85 | | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 86-73-7 | Fluorene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR400f-4SF

Lab ID: E17n90n40f

Field ID: CR00f

Method: SW/HS SLS

Date Sampled: 3/28/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|---------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 78-59-1 | Isophorone | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 91-20-3 | Naphthalene | 74 | U | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 85-01-8 | Phenanthrene | 32 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 108-95-2 | Phenol | 370 | U | ug/kg dry | 370 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| 129-00-0 | Pyrene | 68 | J, Q-2 | ug/kg dry | 74 | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-6543 | Hexadecanoic acid, methyl ester (TIC) | 500 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| R4-6534 | Octadecenoic Acid (TIC) | 1000 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| R4-6545 | Octadecenoic acid, methyl ester (TIC) | 1000 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 14:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4010-SF

Lab ID: E17n90n410

Site ID: CR010

Method: SW/HS

Date: 3/27/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 720 | U | ug/kg dry | 720 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 83-32-9 | Acenaphthene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4010-SF

Lab ID: E17n90n410

Site ID: CR010

Method: SW/HS

Date: 3/27/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 98-86-2 | Acetophenone | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 120-12-7 | Anthracene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 1912-24-9 | Atrazine | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 105-60-2 | Caprolactam | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 86-74-8 | Carbazole | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 218-01-9 | Chrysene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 206-44-0 | Fluoranthene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 86-73-7 | Fluorene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4010-4F

Lab ID: E17n90n410

Field ID: CR010

Method: SW/HS

Date: 8/29/17 11:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 78-59-1 | Isophorone | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 91-20-3 | Naphthalene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 85-01-8 | Phenanthrene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 108-95-2 | Phenol | 360 | U | ug/kg dry | 360 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| 129-00-0 | Pyrene | 72 | U | ug/kg dry | 72 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 400 | U | ug/kg dry | 400 | 8/29/17 9:00 | 9/05/17 20:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4011-4SF

Lab ID: E17n90n411

StHsg ID: CR011

MHrld: Sw/HF Ssla

DHe CsæPev: 382n87 12:1j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 76 | U | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 76 | U | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 43 | J, Q-2 | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 760 | U | ug/kg dry | 760 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 57 | J, Q-2 | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 83-32-9 | Acenaphthene | 180 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4011-SF

Lab ID: E17n90n411

Site ID: CR011

Method: SW/HS S1a

Date Received: 3/27/17 12:1j

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 76 | U | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 98-86-2 | Acetophenone | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 120-12-7 | Anthracene | 470 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 1912-24-9 | Atrazine | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 1600 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 1600 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 1500 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 910 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 1500 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 105-60-2 | Caprolactam | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 86-74-8 | Carbazole | 450 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 218-01-9 | Chrysene | 1600 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 380 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 120 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 206-44-0 | Fluoranthene | 3000 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 86-73-7 | Fluorene | 210 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR4011-4SF

Batch ID: E17n90n411

Field ID: CR011

Method: SW/HS

Date Received: 8/29/17 12:13

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 930 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 78-59-1 | Isophorone | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 91-20-3 | Naphthalene | 170 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 85-01-8 | Phenanthrene | 1800 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 108-95-2 | Phenol | 380 | U | ug/kg dry | 380 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| 129-00-0 | Pyrene | 2100 | | ug/kg dry | 76 | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-8000146 | Cyclopentaphenanthrene (TIC) | 600 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| R4-8000350 | Octadecadienoic acid, methyl ester (TIC) | 900 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |
| R4-6501 | Unidentified Compounds | 400 | J | ug/kg dry | | 8/29/17 9:00 | 9/05/17 15:39 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40124SD

Lab ID: E17n90n412

StHsg ID: CR012

MHrld: Sevlmegt

DHe CsæPtev: 382n87 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|------|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 110 | U | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 110 | U | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 110 | U | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 1100 | U | ug/kg dry | 1100 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 110 | U | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 83-32-9 | Acenaphthene | 140 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40124SD

Lab ID: E17n90n412

Field ID: CR012

Method: Sevlmet

Date Sampled: 3/28/17 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 110 | U | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 98-86-2 | Acetophenone | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 120-12-7 | Anthracene | 520 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 1912-24-9 | Atrazine | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 1500 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 1400 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 1400 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 660 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 1200 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 105-60-2 | Caprolactam | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 86-74-8 | Carbazole | 430 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 218-01-9 | Chrysene | 1500 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 290 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 96 | J, Q-2 | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 206-44-0 | Fluoranthene | 3200 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 86-73-7 | Fluorene | 200 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR40124SD

Sample ID: E17n90n412

Site ID: CR012

Method: Sevlmegt

Date Sampled: 8/29/17 12:20

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 670 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 78-59-1 | Isophorone | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 91-20-3 | Naphthalene | 83 | J, Q-2 | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 85-01-8 | Phenanthrene | 1800 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 108-95-2 | Phenol | 530 | U | ug/kg dry | 530 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| 129-00-0 | Pyrene | 2300 | | ug/kg dry | 110 | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-8000146 | Cyclopentaphenanthrene (TIC) | 500 | NJ | ug/kg dry | | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |
| R4-6500 | Petroleum Product: | | N | | | 8/29/17 9:00 | 9/05/17 16:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17015, C6erH Rlyerilve Dwmp

SHmpæ ID: CR401n4SF

x Hb ID: E17n90n4ln

StHls ID: CR01n

MHrld: Swr/Hæ Ssla

DHe CsæPtev: 3&n&7 12:j 0

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 1319-77-3 | (3-and/or 4-)Methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 92-52-4 | 1,1-Biphenyl | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 123-91-1 | 1,4-Dioxane | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 90-12-0 | 1-Methylnaphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 95-95-4 | 2,4,5-Trichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 88-06-2 | 2,4,6-Trichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 120-83-2 | 2,4-Dichlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 105-67-9 | 2,4-Dimethylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 51-28-5 | 2,4-Dinitrophenol | 900 | U | ug/kg dry | 900 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 121-14-2 | 2,4-Dinitrotoluene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 606-20-2 | 2,6-Dinitrotoluene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 91-58-7 | 2-Chloronaphthalene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 95-57-8 | 2-Chlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 534-52-1 | 2-Methyl-4,6-dinitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 91-57-6 | 2-Methylnaphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 95-48-7 | 2-Methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 88-74-4 | 2-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 88-75-5 | 2-Nitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 91-94-1 | 3,3'-Dichlorobenzidine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 99-09-2 | 3-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 101-55-3 | 4-Bromophenyl phenyl ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 59-50-7 | 4-Chloro-3-methylphenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 106-47-8 | 4-Chloroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 100-01-6 | 4-Nitroaniline | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 100-02-7 | 4-Nitrophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 83-32-9 | Acenaphthene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 17-0516

Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR401n4SF

Lab ID: E17n90n41n

Field ID: CR01n

Method: SW/HS

Date: 3/27/2017 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|------------|-----------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 208-96-8 | Acenaphthylene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 98-86-2 | Acetophenone | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 120-12-7 | Anthracene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 1912-24-9 | Atrazine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 100-52-7 | Benzaldehyde | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 56-55-3 | Benzo(a)anthracene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 50-32-8 | Benzo(a)pyrene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 205-99-2 | Benzo(b)fluoranthene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 191-24-2 | Benzo(g,h,i)perylene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 207-08-9 | Benzo(k)fluoranthene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 85-68-7 | Benzyl butyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 108-60-1 | Bis(2-chloro-1-methylethyl) ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 111-91-1 | Bis(2-chloroethoxy)methane | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 111-44-4 | bis(2-Chloroethyl) Ether | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 117-81-7 | Bis(2-ethylhexyl) phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 105-60-2 | Caprolactam | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 86-74-8 | Carbazole | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 218-01-9 | Chrysene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 53-70-3 | Dibenz(a,h)anthracene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 132-64-9 | Dibenzofuran | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 84-66-2 | Diethyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 131-11-3 | Dimethyl phthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 84-74-2 | Di-n-butylphthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 117-84-0 | Di-n-octylphthalate | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 206-44-0 | Fluoranthene | 42 | J, Q-2 | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 86-73-7 | Fluorene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 118-74-1 | Hexachlorobenzene (HCB) | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 77-47-4 | Hexachlorocyclopentadiene (HCCP) | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 67-72-1 | Hexachloroethane | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |



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 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organics

Project: 17-0516, Cheraw Riverside Dump

Sample ID: CR401n4SF

Lab ID: E17n90n4ln

Field ID: CR01n

Method: SW/HS

Date: 3/27/2017 12:00

| CAS Number | Analyte | Results | Qualifiers | Units | MRL | Prepared | Analyzed | Method |
|-----------------------------------|--------------------------------------|---------|------------|-----------|-----|--------------|---------------|-----------|
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 78-59-1 | Isophorone | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 91-20-3 | Naphthalene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 98-95-3 | Nitrobenzene | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 621-64-7 | n-Nitroso di-n-Propylamine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 122-39-4 | n-Nitrosodiphenylamine/Diphenylamine | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 87-86-5 | Pentachlorophenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 85-01-8 | Phenanthrene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 108-95-2 | Phenol | 450 | U | ug/kg dry | 450 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| 129-00-0 | Pyrene | 90 | U | ug/kg dry | 90 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |
| Tentatively Identified Compounds: | | | | | | | | |
| R4-0000 | Tentatively Identified Compounds | 500 | U | ug/kg dry | 500 | 8/29/17 9:00 | 9/05/17 21:09 | EPA 8270D |



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Semi-Annual Site Inspection (SYOA) 4u White Csgtrs a
US4EoA, ReMsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-----------|-------------|---------------|------|-------------|-----|-----------|-------|
| BHP6 17030f j 4E nj 9j A Msvl/lev | | | | | | | | | | |
| BHP6 (17030f j 4E nj 9j A Msvl/lev) | | | | | | | | | | |
| Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | | | | | |
| EPA 8270D | | | | | | | | | | |
| (3-and/or 4-)Methylphenol | U | 330 | ug/kg dry | | | | | | | U |
| 1,1-Biphenyl | U | 66 | " | | | | | | | U |
| 1,4-Dioxane | U | 66 | " | | | | | | | U |
| 1-Methylnaphthalene | U | 66 | " | | | | | | | U |
| 2,3,4,6-Tetrachlorophenol | U | 330 | " | | | | | | | U |
| 2,4,5-Trichlorophenol | U | 330 | " | | | | | | | U |
| 2,4,6-Trichlorophenol | U | 330 | " | | | | | | | U |
| 2,4-Dichlorophenol | U | 330 | " | | | | | | | U |
| 2,4-Dimethylphenol | U | 330 | " | | | | | | | U |
| 2,4-Dinitrophenol | U | 660 | " | | | | | | | U |
| 2,4-Dinitrotoluene | U | 330 | " | | | | | | | U |
| 2,6-Dinitrotoluene | U | 330 | " | | | | | | | U |
| 2-Chloronaphthalene | U | 330 | " | | | | | | | U |
| 2-Chlorophenol | U | 330 | " | | | | | | | U |
| 2-Methyl-4,6-dinitrophenol | U | 330 | " | | | | | | | U |
| 2-Methylnaphthalene | U | 66 | " | | | | | | | U |
| 2-Methylphenol | U | 330 | " | | | | | | | U |
| 2-Nitroaniline | U | 330 | " | | | | | | | U |
| 2-Nitrophenol | U | 330 | " | | | | | | | U |
| 3,3'-Dichlorobenzidine | U | 330 | " | | | | | | | U |
| 3-Nitroaniline | U | 330 | " | | | | | | | U |
| 4-Bromophenyl phenyl ether | U | 330 | " | | | | | | | U |
| 4-Chloro-3-methylphenol | U | 330 | " | | | | | | | U |
| 4-Chloroaniline | U | 330 | " | | | | | | | U |
| 4-Chlorophenyl phenyl ether | U | 330 | " | | | | | | | U |
| 4-Nitroaniline | U | 330 | " | | | | | | | U |
| 4-Nitrophenol | U | 330 | " | | | | | | | U |
| Acenaphthene | U | 66 | " | | | | | | | U |
| Acenaphthylene | U | 66 | " | | | | | | | U |
| Acetophenone | U | 330 | " | | | | | | | U |
| Anthracene | U | 66 | " | | | | | | | U |
| Atrazine | U | 330 | " | | | | | | | U |
| Benzaldehyde | U | 330 | " | | | | | | | U |
| Benzo(a)anthracene | U | 66 | " | | | | | | | U |
| Benzo(a)pyrene | U | 66 | " | | | | | | | U |
| Benzo(b)fluoranthene | U | 66 | " | | | | | | | U |
| Benzo(g,h,i)perylene | U | 66 | " | | | | | | | U |
| Benzo(k)fluoranthene | U | 66 | " | | | | | | | U |
| Benzyl butyl phthalate | U | 330 | " | | | | | | | U |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Site Environmental Monitoring (SYO) 4u White Csgtrs a
 US4EoA, ReMsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-----------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| BHP6 17030fj 4E nj 9j A Ms vl/lev | | | | | | | | | | |
| BHP6 (17030fj 4E x K1) | | | | Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | |
| Bis(2-chloro-1-methylethyl) ether | U | 330 | ug/kg dry | | | | | | | U |
| Bis(2-chloroethoxy)methane | U | 330 | " | | | | | | | U |
| bis(2-Chloroethyl) Ether | U | 330 | " | | | | | | | U |
| Bis(2-ethylhexyl) phthalate | U | 330 | " | | | | | | | U |
| Caprolactam | U | 330 | " | | | | | | | U |
| Carbazole | U | 66 | " | | | | | | | U |
| Chrysene | U | 66 | " | | | | | | | U |
| Dibenz(a,h)anthracene | U | 66 | " | | | | | | | U |
| Dibenzofuran | U | 66 | " | | | | | | | U |
| Diethyl phthalate | U | 330 | " | | | | | | | U |
| Dimethyl phthalate | U | 330 | " | | | | | | | U |
| Di-n-butylphthalate | U | 330 | " | | | | | | | U |
| Di-n-octylphthalate | U | 330 | " | | | | | | | U |
| Fluoranthene | U | 66 | " | | | | | | | U |
| Fluorene | U | 66 | " | | | | | | | U |
| Hexachlorobenzene (HCB) | U | 330 | " | | | | | | | U |
| Hexachlorocyclopentadiene (HCCP) | U | 330 | " | | | | | | | U |
| Hexachloroethane | U | 330 | " | | | | | | | U |
| Indeno (1,2,3-cd) pyrene | U | 66 | " | | | | | | | U |
| Isophorone | U | 330 | " | | | | | | | U |
| Naphthalene | U | 66 | " | | | | | | | U |
| Nitrobenzene | U | 330 | " | | | | | | | U |
| n-Nitroso di-n-Propylamine | U | 330 | " | | | | | | | U |
| n-Nitrosodiphenylamine/Diphenylamine | U | 330 | " | | | | | | | U |
| Pentachlorophenol | U | 330 | " | | | | | | | U |
| Phenanthrene | U | 66 | " | | | | | | | U |
| Phenol | U | 330 | " | | | | | | | U |
| Pyrene | U | 66 | " | | | | | | | U |
| Tentatively Identified Compounds | U | 300 | " | | | | | | | U |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Organic Volatile (SYOA) 4u vHtc Csgtrs a
 US4EoA, ReVlsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|----------------------------------|--------|-----------------|-----------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| BHP6 17030fj 4E nj 9j A Msvl/lev | | | | | | | | | | |
| x CS (17030fj 4BS1) | | | | Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | |
| EPA 8270D | | | | | | | | | | |
| (3-and/or 4-)Methylphenol | 1646.2 | 330 | ug/kg dry | 2000.0 | | 82.3 | 56-94 | | | |
| 1,1-Biphenyl | 1736.3 | 66 | " | 2000.0 | | 86.8 | 60-95 | | | |
| 1,4-Dioxane | 1392.6 | 66 | " | 2000.0 | | 69.6 | 20-76 | | | |
| 1-Methylnaphthalene | 1734.2 | 66 | " | 2000.0 | | 86.7 | 59-87 | | | |
| 2,3,4,6-Tetrachlorophenol | 1864.9 | 330 | " | 2000.0 | | 93.2 | 42-128 | | | |
| 2,4,5-Trichlorophenol | 1717.5 | 330 | " | 2000.0 | | 85.9 | 66-105 | | | |
| 2,4,6-Trichlorophenol | 1618.6 | 330 | " | 2000.0 | | 80.9 | 63-98 | | | |
| 2,4-Dichlorophenol | 1709.7 | 330 | " | 2000.0 | | 85.5 | 62-97 | | | |
| 2,4-Dimethylphenol | 1207.6 | 330 | " | 2000.0 | | 60.4 | 24-87 | | | |
| 2,4-Dinitrophenol | 2332.0 | 660 | " | 4000.0 | | 58.3 | 17-71 | | | |
| 2,4-Dinitrotoluene | 1811.0 | 330 | " | 2000.0 | | 90.5 | 65-110 | | | |
| 2,6-Dinitrotoluene | 1752.3 | 330 | " | 2000.0 | | 87.6 | 62-110 | | | |
| 2-Chloronaphthalene | 1752.4 | 330 | " | 2000.0 | | 87.6 | 57-96 | | | |
| 2-Chlorophenol | 1621.9 | 330 | " | 2000.0 | | 81.1 | 56-90 | | | |
| 2-Methyl-4,6-dinitrophenol | 1640.7 | 330 | " | 2000.0 | | 82.0 | 51-99 | | | |
| 2-Methylnaphthalene | 1728.4 | 66 | " | 2000.0 | | 86.4 | 63-96 | | | |
| 2-Methylphenol | 1616.7 | 330 | " | 2000.0 | | 80.8 | 53-92 | | | |
| 2-Nitroaniline | 1952.6 | 330 | " | 2000.0 | | 97.6 | 61-116 | | | |
| 2-Nitrophenol | 1679.2 | 330 | " | 2000.0 | | 84.0 | 60-92 | | | |
| 3,3'-Dichlorobenzidine | 1193.8 | 330 | " | 2000.0 | | 59.7 | 31-104 | | | |
| 3-Nitroaniline | 1672.8 | 330 | " | 2000.0 | | 83.6 | 56-101 | | | |
| 4-Bromophenyl phenyl ether | 1889.0 | 330 | " | 2000.0 | | 94.4 | 55-109 | | | |
| 4-Chloro-3-methylphenol | 1719.3 | 330 | " | 2000.0 | | 86.0 | 63-102 | | | |
| 4-Chloroaniline | 958.73 | 330 | " | 2000.0 | | 47.9 | 10-96 | | | |
| 4-Chlorophenyl phenyl ether | 1686.0 | 330 | " | 2000.0 | | 84.3 | 55-109 | | | |
| 4-Nitroaniline | 2203.1 | 330 | " | 2000.0 | | 110 | 56-135 | | | |
| 4-Nitrophenol | 1881.1 | 330 | " | 2000.0 | | 94.1 | 58-117 | | | |
| Acenaphthene | 1708.6 | 66 | " | 2000.0 | | 85.4 | 60-102 | | | |
| Acenaphthylene | 1767.4 | 66 | " | 2000.0 | | 88.4 | 59-100 | | | |
| Acetophenone | 1668.6 | 330 | " | 2000.0 | | 83.4 | 49-96 | | | |
| Anthracene | 1831.5 | 66 | " | 2000.0 | | 91.6 | 61-102 | | | |
| Atrazine | 1653.1 | 330 | " | 2000.0 | | 82.7 | 10-123 | | | |
| Benzaldehyde | 1081.8 | 330 | " | 2000.0 | | 54.1 | 41-125 | | | |
| Benzo(a)anthracene | 1766.6 | 66 | " | 2000.0 | | 88.3 | 65-105 | | | |
| Benzo(a)pyrene | 1905.0 | 66 | " | 2000.0 | | 95.2 | 60-113 | | | |
| Benzo(b)fluoranthene | 1676.3 | 66 | " | 2000.0 | | 83.8 | 61-116 | | | |
| Benzo(g,h,i)perylene | 1775.5 | 66 | " | 2000.0 | | 88.8 | 45-114 | | | |
| Benzo(k)fluoranthene | 1872.0 | 66 | " | 2000.0 | | 93.6 | 57-115 | | | |
| Benzyl butyl phthalate | 1717.6 | 330 | " | 2000.0 | | 85.9 | 56-112 | | | |



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 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Site Environmental Monitoring (SYO) 4th Quarter
 US4 EoA, Revision 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------|-----------|---------------------------------------|---------------|------|-------------|-----|-----------|-------|
| BHP6 17030fj 4E nj 9j A Msvl/lev | | | | | | | | | | |
| x CS (17030fj 4BS1) | | | | Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | |
| Bis(2-chloro-1-methylethyl) ether | 1634.0 | 330 | ug/kg dry | 2000.0 | | 81.7 | 40-105 | | | |
| Bis(2-chloroethoxy)methane | 1785.2 | 330 | " | 2000.0 | | 89.3 | 51-102 | | | |
| bis(2-Chloroethyl) Ether | 1644.8 | 330 | " | 2000.0 | | 82.2 | 43-100 | | | |
| Bis(2-ethylhexyl) phthalate | 1705.7 | 330 | " | 2000.0 | | 85.3 | 55-109 | | | |
| Caprolactam | 1900.1 | 330 | " | 2000.0 | | 95.0 | 66-101 | | | |
| Carbazole | 2165.3 | 66 | " | 2000.0 | | 108 | 62-112 | | | |
| Chrysene | 1819.4 | 66 | " | 2000.0 | | 91.0 | 60-106 | | | |
| Dibenz(a,h)anthracene | 1868.8 | 66 | " | 2000.0 | | 93.4 | 46-117 | | | |
| Dibenzofuran | 1813.3 | 66 | " | 2000.0 | | 90.7 | 57-100 | | | |
| Diethyl phthalate | 1793.4 | 330 | " | 2000.0 | | 89.7 | 57-99 | | | |
| Dimethyl phthalate | 1781.5 | 330 | " | 2000.0 | | 89.1 | 55-97 | | | |
| Di-n-butylphthalate | 1908.3 | 330 | " | 2000.0 | | 95.4 | 54-101 | | | |
| Di-n-octylphthalate | 1891.8 | 330 | " | 2000.0 | | 94.6 | 48-127 | | | |
| Fluoranthene | 1886.2 | 66 | " | 2000.0 | | 94.3 | 64-105 | | | |
| Fluorene | 1787.0 | 66 | " | 2000.0 | | 89.3 | 62-108 | | | |
| Hexachlorobenzene (HCB) | 1997.7 | 330 | " | 2000.0 | | 99.9 | 36-91 | | | QL-2 |
| Hexachlorocyclopentadiene (HCCP) | 1533.2 | 330 | " | 2000.0 | | 76.7 | 25-99 | | | |
| Hexachloroethane | 1642.1 | 330 | " | 2000.0 | | 82.1 | 50-86 | | | |
| Indeno (1,2,3-cd) pyrene | 1870.7 | 66 | " | 2000.0 | | 93.5 | 48-116 | | | |
| Isophorone | 1668.9 | 330 | " | 2000.0 | | 83.4 | 55-100 | | | |
| Naphthalene | 1620.1 | 66 | " | 2000.0 | | 81.0 | 58-89 | | | |
| Nitrobenzene | 1649.6 | 330 | " | 2000.0 | | 82.5 | 52-102 | | | |
| n-Nitroso di-n-Propylamine | 1728.1 | 330 | " | 2000.0 | | 86.4 | 50-98 | | | |
| n-Nitrosodiphenylamine/Diphenylamine | 1869.4 | 330 | " | 2000.0 | | 93.5 | 59-104 | | | |
| Pentachlorophenol | 1872.6 | 330 | " | 2000.0 | | 93.6 | 50-105 | | | |
| Phenanthrene | 1710.4 | 66 | " | 2000.0 | | 85.5 | 62-103 | | | |
| Phenol | 1610.3 | 330 | " | 2000.0 | | 80.5 | 56-94 | | | |
| Pyrene | 1591.4 | 66 | " | 2000.0 | | 79.6 | 58-119 | | | |



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 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Organic Volatile (SYOA) 4u White Csgtrs a
 US4EoA, ReMsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-----------|-------------|---------------|------|-------------|-----|-----------|---------|
| BHP6 17030f j 4E nj 9j A Msvl/lev | | | | | | | | | | |
| MHrld Spike (17030f j 4MS1) SswPe: E17n90n4f Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | | | | | |
| EPA 8270D | | | | | | | | | | |
| (3-and/or 4-)Methylphenol | 1152.3 | 370 | ug/kg dry | 2239.6 | U | 51.4 | 10-119 | | | |
| 1,1-Biphenyl | 1861.3 | 74 | " | 2239.6 | U | 83.1 | 56-96 | | | |
| 1,4-Dioxane | 1450.6 | 74 | " | 2239.6 | U | 64.8 | 25-70 | | | |
| 1-Methylnaphthalene | 1874.2 | 74 | " | 2239.6 | U | 83.7 | 54-88 | | | |
| 2,3,4,6-Tetrachlorophenol | 1994.7 | 370 | " | 2239.6 | U | 89.1 | 45-115 | | | |
| 2,4,5-Trichlorophenol | 1892.6 | 370 | " | 2239.6 | U | 84.5 | 63-107 | | | |
| 2,4,6-Trichlorophenol | 1645.1 | 370 | " | 2239.6 | U | 73.5 | 47-106 | | | |
| 2,4-Dichlorophenol | 1815.9 | 370 | " | 2239.6 | U | 81.1 | 55-99 | | | |
| 2,4-Dimethylphenol | 520.75 | 370 | " | 2239.6 | U | 23.3 | 10-117 | | | |
| 2,4-Dinitrophenol | 4762.4 | 740 | " | 4479.3 | U | 106 | 10-145 | | | |
| 2,4-Dinitrotoluene | 1940.9 | 370 | " | 2239.6 | U | 86.7 | 64-107 | | | |
| 2,6-Dinitrotoluene | 1886.0 | 370 | " | 2239.6 | U | 84.2 | 63-106 | | | |
| 2-Chloronaphthalene | 1905.2 | 370 | " | 2239.6 | U | 85.1 | 55-94 | | | |
| 2-Chlorophenol | 1647.2 | 370 | " | 2239.6 | U | 73.5 | 44-93 | | | |
| 2-Methyl-4,6-dinitrophenol | 2004.3 | 370 | " | 2239.6 | U | 89.5 | 18-127 | | | |
| 2-Methylnaphthalene | 1865.5 | 74 | " | 2239.6 | U | 83.3 | 58-97 | | | |
| 2-Methylphenol | 1188.8 | 370 | " | 2239.6 | U | 53.1 | 5-115 | | | |
| 2-Nitroaniline | 2046.4 | 370 | " | 2239.6 | U | 91.4 | 52-117 | | | |
| 2-Nitrophenol | 1844.6 | 370 | " | 2239.6 | U | 82.4 | 59-94 | | | |
| 3,3'-Dichlorobenzidine | U | 370 | " | 2239.6 | U | | 10-99 | | | QM-6, U |
| 3-Nitroaniline | 1270.0 | 370 | " | 2239.6 | U | 56.7 | 10-117 | | | |
| 4-Bromophenyl phenyl ether | 1980.0 | 370 | " | 2239.6 | U | 88.4 | 49-105 | | | |
| 4-Chloro-3-methylphenol | 1754.2 | 370 | " | 2239.6 | U | 78.3 | 54-105 | | | |
| 4-Chloroaniline | 414.22 | 370 | " | 2239.6 | U | 18.5 | 10-73 | | | |
| 4-Chlorophenyl phenyl ether | 1830.4 | 370 | " | 2239.6 | U | 81.7 | 49-105 | | | |
| 4-Nitroaniline | 2013.5 | 370 | " | 2239.6 | U | 89.9 | 10-151 | | | |
| 4-Nitrophenol | 2095.4 | 370 | " | 2239.6 | U | 93.6 | 57-111 | | | |
| Acenaphthene | 1828.6 | 74 | " | 2239.6 | U | 81.6 | 51-106 | | | |
| Acenaphthylene | 1855.7 | 74 | " | 2239.6 | U | 82.9 | 43-106 | | | |
| Acetophenone | 1730.4 | 370 | " | 2239.6 | U | 77.3 | 46-98 | | | |
| Anthracene | 1938.9 | 74 | " | 2239.6 | U | 86.6 | 45-103 | | | |
| Atrazine | 1729.4 | 370 | " | 2239.6 | U | 77.2 | 10-115 | | | |
| Benzaldehyde | 859.72 | 370 | " | 2239.6 | U | 38.4 | 10-139 | | | |
| Benzo(a)anthracene | 1888.1 | 74 | " | 2239.6 | 47.612 | 82.2 | 10-190 | | | |
| Benzo(a)pyrene | 2030.1 | 74 | " | 2239.6 | 43.246 | 88.7 | 10-172 | | | |
| Benzo(b)fluoranthene | 1827.1 | 74 | " | 2239.6 | 41.754 | 79.7 | 10-190 | | | |
| Benzo(g,h,i)perylene | 1475.9 | 74 | " | 2239.6 | U | 65.9 | 10-131 | | | |
| Benzo(k)fluoranthene | 2184.8 | 74 | " | 2239.6 | 46.231 | 95.5 | 10-184 | | | |
| Benzyl butyl phthalate | 1808.8 | 370 | " | 2239.6 | U | 80.8 | 42-114 | | | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Organic (SYOA) 4u White Csgtrs a
 US4EoA, ReMsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|---------------------------|-----------|--------------------|---------------|--------------------|-------------|-----|-----------|-------|
| BHP6 17030fj 4E nj 9j A Ms vl/lev | | | | | | | | | | |
| MHrld Spike (17030fj 4MS1) | | SswrPe: E17n90n40f | | Prepared: 08/29/17 | | Analyzed: 09/05/17 | | | | |
| Bis(2-chloro-1-methylethyl) ether | 1731.3 | 370 | ug/kg dry | 2239.6 | U | 77.3 | 44-97 | | | |
| Bis(2-chloroethoxy)methane | 1896.6 | 370 | " | 2239.6 | U | 84.7 | 52-98 | | | |
| bis(2-Chloroethyl) Ether | 1750.2 | 370 | " | 2239.6 | U | 78.1 | 41-98 | | | |
| Bis(2-ethylhexyl) phthalate | 1743.3 | 370 | " | 2239.6 | U | 77.8 | 10-174 | | | |
| Caprolactam | 2140.4 | 370 | " | 2239.6 | U | 95.6 | 63-103 | | | |
| Carbazole | 2372.9 | 74 | " | 2239.6 | U | 106 | 54-115 | | | |
| Chrysene | 1940.2 | 74 | " | 2239.6 | 54.925 | 84.2 | 10-190 | | | |
| Dibenz(a,h)anthracene | 1809.3 | 74 | " | 2239.6 | U | 80.8 | 22-114 | | | |
| Dibenzofuran | 1966.3 | 74 | " | 2239.6 | U | 87.8 | 50-103 | | | |
| Diethyl phthalate | 1899.1 | 370 | " | 2239.6 | U | 84.8 | 54-94 | | | |
| Dimethyl phthalate | 1911.8 | 370 | " | 2239.6 | U | 85.4 | 56-94 | | | |
| Di-n-butylphthalate | 1990.4 | 370 | " | 2239.6 | U | 88.9 | 46-92 | | | |
| Di-n-octylphthalate | 1823.3 | 370 | " | 2239.6 | U | 81.4 | 33-141 | | | |
| Fluoranthene | 2059.4 | 74 | " | 2239.6 | 84.664 | 88.2 | 10-145 | | | |
| Fluorene | 1941.4 | 74 | " | 2239.6 | U | 86.7 | 53-111 | | | |
| Hexachlorobenzene (HCB) | 2068.6 | 370 | " | 2239.6 | U | 92.4 | 34-83 | | | QM-2 |
| Hexachlorocyclopentadiene (HCCP) | 1322.2 | 370 | " | 2239.6 | U | 59.0 | 10-88 | | | |
| Hexachloroethane | 1705.5 | 370 | " | 2239.6 | U | 76.1 | 42-83 | | | |
| Indeno (1,2,3-cd) pyrene | 1719.1 | 74 | " | 2239.6 | U | 76.8 | 10-131 | | | |
| Isophorone | 1741.6 | 370 | " | 2239.6 | U | 77.8 | 58-93 | | | |
| Naphthalene | 1753.4 | 74 | " | 2239.6 | U | 78.3 | 56-88 | | | |
| Nitrobenzene | 1748.8 | 370 | " | 2239.6 | U | 78.1 | 43-110 | | | |
| n-Nitroso di-n-Propylamine | 1786.1 | 370 | " | 2239.6 | U | 79.7 | 52-92 | | | |
| n-Nitrosodiphenylamine/Diphenylamine | 1497.3 | 370 | " | 2239.6 | U | 66.9 | 32-115 | | | |
| Pentachlorophenol | 2091.6 | 370 | " | 2239.6 | U | 93.4 | 43-107 | | | |
| Phenanthrene | 1839.4 | 74 | " | 2239.6 | 31.604 | 80.7 | 10-171 | | | |
| Phenol | 1614.4 | 370 | " | 2239.6 | U | 72.1 | 46-97 | | | |
| Pyrene | 1726.8 | 74 | " | 2239.6 | 68.284 | 74.1 | 10-180 | | | |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Organic Volatile (SYOA) 4u vHtc Csgtrs a
 US4EoA, ReVlsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-----------|-------------|---------------|------|-------------|-------|-----------|---------|
| BHP6 17030f j 4E nj 9j A Msvl/lev | | | | | | | | | | |
| MHrld Spike Dwp (17030f j 4MSD1) | | | | | | | | | | |
| EPA 8270D | | | | | | | | | | |
| (3-and/or 4-)Methylphenol | 1191.6 | 370 | ug/kg dry | 2239.6 | U | 53.2 | 10-119 | 3.36 | 99 | |
| 1,1-Biphenyl | 1936.0 | 74 | " | 2239.6 | U | 86.4 | 56-96 | 3.93 | 16 | |
| 1,4-Dioxane | 1464.1 | 74 | " | 2239.6 | U | 65.4 | 25-70 | 0.922 | 25 | |
| 1-Methylnaphthalene | 1915.2 | 74 | " | 2239.6 | U | 85.5 | 54-88 | 2.16 | 18 | |
| 2,3,4,6-Tetrachlorophenol | 2125.8 | 370 | " | 2239.6 | U | 94.9 | 45-115 | 6.36 | 17 | |
| 2,4,5-Trichlorophenol | 1960.0 | 370 | " | 2239.6 | U | 87.5 | 63-107 | 3.50 | 14 | |
| 2,4,6-Trichlorophenol | 1821.6 | 370 | " | 2239.6 | U | 81.3 | 47-106 | 10.2 | 19 | |
| 2,4-Dichlorophenol | 1899.8 | 370 | " | 2239.6 | U | 84.8 | 55-99 | 4.52 | 17 | |
| 2,4-Dimethylphenol | 532.92 | 370 | " | 2239.6 | U | 23.8 | 10-117 | 2.31 | 98 | |
| 2,4-Dinitrophenol | 5291.2 | 740 | " | 4479.3 | U | 118 | 10-145 | 10.5 | 95 | |
| 2,4-Dinitrotoluene | 2070.7 | 370 | " | 2239.6 | U | 92.5 | 64-107 | 6.47 | 15 | |
| 2,6-Dinitrotoluene | 2001.5 | 370 | " | 2239.6 | U | 89.4 | 63-106 | 5.94 | 14 | |
| 2-Chloronaphthalene | 1997.8 | 370 | " | 2239.6 | U | 89.2 | 55-94 | 4.74 | 15 | |
| 2-Chlorophenol | 1680.8 | 370 | " | 2239.6 | U | 75.0 | 44-93 | 2.02 | 21 | |
| 2-Methyl-4,6-dinitrophenol | 2172.3 | 370 | " | 2239.6 | U | 97.0 | 18-127 | 8.05 | 22 | |
| 2-Methylnaphthalene | 1908.4 | 74 | " | 2239.6 | U | 85.2 | 58-97 | 2.27 | 18 | |
| 2-Methylphenol | 1256.4 | 370 | " | 2239.6 | U | 56.1 | 5-115 | 5.52 | 62 | |
| 2-Nitroaniline | 2193.2 | 370 | " | 2239.6 | U | 97.9 | 52-117 | 6.93 | 18 | |
| 2-Nitrophenol | 1917.2 | 370 | " | 2239.6 | U | 85.6 | 59-94 | 3.86 | 17 | |
| 3,3'-Dichlorobenzidine | U | 370 | " | 2239.6 | U | | 10-99 | | 58 | QM-6, U |
| 3-Nitroaniline | 1438.9 | 370 | " | 2239.6 | U | 64.2 | 10-117 | 12.5 | 49 | |
| 4-Bromophenyl phenyl ether | 2079.0 | 370 | " | 2239.6 | U | 92.8 | 49-105 | 4.88 | 17 | |
| 4-Chloro-3-methylphenol | 1838.5 | 370 | " | 2239.6 | U | 82.1 | 54-105 | 4.69 | 19 | |
| 4-Chloroaniline | 472.34 | 370 | " | 2239.6 | U | 21.1 | 10-73 | 13.1 | 49 | |
| 4-Chlorophenyl phenyl ether | 1907.3 | 370 | " | 2239.6 | U | 85.2 | 49-105 | 4.11 | 17 | |
| 4-Nitroaniline | 2258.3 | 370 | " | 2239.6 | U | 101 | 10-151 | 11.5 | 61 | |
| 4-Nitrophenol | 2254.9 | 370 | " | 2239.6 | U | 101 | 57-111 | 7.33 | 22 | |
| Acenaphthene | 1904.7 | 74 | " | 2239.6 | U | 85.0 | 51-106 | 4.08 | 22 | |
| Acenaphthylene | 1949.0 | 74 | " | 2239.6 | U | 87.0 | 43-106 | 4.91 | 20 | |
| Acetophenone | 1796.4 | 370 | " | 2239.6 | U | 80.2 | 46-98 | 3.74 | 14 | |
| Anthracene | 1942.1 | 74 | " | 2239.6 | U | 86.7 | 45-103 | 0.165 | 20 | |
| Atrazine | 1760.1 | 370 | " | 2239.6 | U | 78.6 | 10-115 | 1.76 | 13 | |
| Benzaldehyde | 835.31 | 370 | " | 2239.6 | U | 37.3 | 10-139 | 2.88 | 70 | |
| Benzo(a)anthracene | 1976.4 | 74 | " | 2239.6 | 47.612 | 86.1 | 10-190 | 4.57 | 35 | |
| Benzo(a)pyrene | 2097.5 | 74 | " | 2239.6 | 43.246 | 91.7 | 10-172 | 3.27 | 36 | |
| Benzo(b)fluoranthene | 2000.1 | 74 | " | 2239.6 | 41.754 | 87.4 | 10-190 | 9.04 | 38 | |
| Benzo(g,h,i)perylene | 1416.1 | 74 | " | 2239.6 | U | 63.2 | 10-131 | 4.14 | 34 | |
| Benzo(k)fluoranthene | 2375.6 | 74 | " | 2239.6 | 46.231 | 104 | 10-184 | 8.36 | 32 | |
| Benzyl butyl phthalate | 1939.2 | 370 | " | 2239.6 | U | 86.6 | 42-114 | 6.96 | 24 | |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Organic (SYOA) 4u white Csgtrs a
 US4EoA, ReVsg 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------|-----------|-------------|---------------|------|-------------|---------|-----------|-------|
| BHP6 17030f j 4E nj 9j A Msvl/lev | | | | | | | | | | |
| MHrld Spike Dwp (17030f j 4MSD1) SswrPe: E17n90n40f Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | | | | | |
| Bis(2-chloro-1-methylethyl) ether | 1780.8 | 370 | ug/kg dry | 2239.6 | U | 79.5 | 44-97 | 2.82 | 12 | |
| Bis(2-chloroethoxy)methane | 1938.4 | 370 | " | 2239.6 | U | 86.5 | 52-98 | 2.18 | 11 | |
| bis(2-Chloroethyl) Ether | 1781.4 | 370 | " | 2239.6 | U | 79.5 | 41-98 | 1.77 | 27 | |
| Bis(2-ethylhexyl) phthalate | 1841.2 | 370 | " | 2239.6 | U | 82.2 | 10-174 | 5.46 | 10 | |
| Caprolactam | 2083.9 | 370 | " | 2239.6 | U | 93.0 | 63-103 | 2.67 | 13 | |
| Carbazole | 2487.2 | 74 | " | 2239.6 | U | 111 | 54-115 | 4.71 | 19 | |
| Chrysene | 2008.2 | 74 | " | 2239.6 | 54.925 | 87.2 | 10-190 | 3.44 | 34 | |
| Dibenz(a,h)anthracene | 1727.5 | 74 | " | 2239.6 | U | 77.1 | 22-114 | 4.62 | 22 | |
| Dibenzofuran | 2055.6 | 74 | " | 2239.6 | U | 91.8 | 50-103 | 4.44 | 22 | |
| Diethyl phthalate | 1975.6 | 370 | " | 2239.6 | U | 88.2 | 54-94 | 3.95 | 15 | |
| Dimethyl phthalate | 2013.6 | 370 | " | 2239.6 | U | 89.9 | 56-94 | 5.19 | 10 | |
| Di-n-butylphthalate | 1990.4 | 370 | " | 2239.6 | U | 88.9 | 46-92 | 0.00186 | 24 | |
| Di-n-octylphthalate | 1849.6 | 370 | " | 2239.6 | U | 82.6 | 33-141 | 1.43 | 20 | |
| Fluoranthene | 2088.3 | 74 | " | 2239.6 | 84.664 | 89.5 | 10-145 | 1.40 | 60 | |
| Fluorene | 2009.3 | 74 | " | 2239.6 | U | 89.7 | 53-111 | 3.44 | 22 | |
| Hexachlorobenzene (HCB) | 2145.3 | 370 | " | 2239.6 | U | 95.8 | 34-83 | 3.64 | 15 | QM-2 |
| Hexachlorocyclopentadiene (HCCP) | 1536.5 | 370 | " | 2239.6 | U | 68.6 | 10-88 | 15.0 | 100 | |
| Hexachloroethane | 1728.8 | 370 | " | 2239.6 | U | 77.2 | 42-83 | 1.36 | 19 | |
| Indeno (1,2,3-cd) pyrene | 1642.4 | 74 | " | 2239.6 | U | 73.3 | 10-131 | 4.57 | 31 | |
| Isophorone | 1777.5 | 370 | " | 2239.6 | U | 79.4 | 58-93 | 2.04 | 12 | |
| Naphthalene | 1779.5 | 74 | " | 2239.6 | U | 79.5 | 56-88 | 1.47 | 18 | |
| Nitrobenzene | 1789.0 | 370 | " | 2239.6 | U | 79.9 | 43-110 | 2.27 | 14 | |
| n-Nitroso di-n-Propylamine | 1838.1 | 370 | " | 2239.6 | U | 82.1 | 52-92 | 2.87 | 13 | |
| n-Nitrosodiphenylamine/Diphenylamine | 1600.4 | 370 | " | 2239.6 | U | 71.5 | 32-115 | 6.66 | 24 | |
| Pentachlorophenol | 2189.5 | 370 | " | 2239.6 | U | 97.8 | 43-107 | 4.57 | 21 | |
| Phenanthrene | 1892.1 | 74 | " | 2239.6 | 31.604 | 83.1 | 10-171 | 2.82 | 52 | |
| Phenol | 1649.6 | 370 | " | 2239.6 | U | 73.7 | 46-97 | 2.16 | 38 | |
| Pyrene | 1859.8 | 74 | " | 2239.6 | 68.284 | 80.0 | 10-180 | 7.42 | 50 | |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Volatile Organic (SYOA) 4u White Csgtrs a
US4EoA, ReVsg 9, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

BHP6 17030f j 4E nj 9j A Msvl/lev

MRx Yerl/PHHs g (17030f j 4o S1)

Prepared: 08/29/17 Analyzed: 09/05/17

EPA 8270D

| | | | | | | | | | | |
|----------------------------|--------|-----|-----------|--------|--|------|--------|--|--|------------------|
| (3-and/or 4-)Methylphenol | 261.03 | 330 | ug/kg dry | 333.33 | | 78.3 | 36-114 | | | Q-2, MRL-3, J |
| 1,1-Biphenyl | 64.533 | 66 | " | 66.667 | | 96.8 | 40-115 | | | Q-2, MRL-3, J |
| 1,4-Dioxane | 50.167 | 66 | " | 66.667 | | 75.2 | 10-96 | | | Q-2, MRL-3, J |
| 1-Methylnaphthalene | 61.867 | 66 | " | 66.667 | | 92.8 | 39-107 | | | Q-2, MRL-3, J |
| 2,3,4,6-Tetrachlorophenol | 275.87 | 330 | " | 333.33 | | 82.8 | 22-148 | | | Q-2, MRL-3, J |
| 2,4,5-Trichlorophenol | 249.13 | 330 | " | 333.33 | | 74.7 | 46-125 | | | Q-2, MRL-3, J |
| 2,4,6-Trichlorophenol | 250.93 | 330 | " | 333.33 | | 75.3 | 43-118 | | | Q-2, MRL-3, J |
| 2,4-Dichlorophenol | 275.60 | 330 | " | 333.33 | | 82.7 | 42-117 | | | Q-2, MRL-3, J |
| 2,4-Dimethylphenol | 145.57 | 330 | " | 333.33 | | 43.7 | 10-107 | | | Q-2, MRL-3, J |
| 2,4-Dinitrophenol | 155.10 | 660 | " | 666.67 | | 23.3 | 10-91 | | | Q-2, MRL-3, J |
| 2,4-Dinitrotoluene | 285.07 | 330 | " | 333.33 | | 85.5 | 45-130 | | | Q-2, MRL-3, J |
| 2,6-Dinitrotoluene | 280.63 | 330 | " | 333.33 | | 84.2 | 42-130 | | | Q-2, MRL-3, J |
| 2-Chloronaphthalene | 301.37 | 330 | " | 333.33 | | 90.4 | 37-116 | | | Q-2, MRL-3, J |
| 2-Chlorophenol | 270.83 | 330 | " | 333.33 | | 81.2 | 36-110 | | | Q-2, MRL-3, J |
| 2-Methyl-4,6-dinitrophenol | 175.47 | 330 | " | 333.33 | | 52.6 | 31-119 | | | Q-2, MRL-3, J |
| 2-Methylnaphthalene | 62.267 | 66 | " | 66.667 | | 93.4 | 43-116 | | | Q-2, MRL-3, J |
| 2-Methylphenol | 260.23 | 330 | " | 333.33 | | 78.1 | 33-112 | | | Q-2, MRL-3, J |
| 2-Nitroaniline | 315.67 | 330 | " | 333.33 | | 94.7 | 41-136 | | | Q-2, MRL-3, J |
| 2-Nitrophenol | 266.20 | 330 | " | 333.33 | | 79.9 | 40-112 | | | Q-2, MRL-3, J |
| 3,3'-Dichlorobenzidine | 150.63 | 330 | " | 333.33 | | 45.2 | 11-124 | | | Q-2, MRL-3, J |
| 3-Nitroaniline | 230.40 | 330 | " | 333.33 | | 69.1 | 36-121 | | | Q-2, MRL-3, J |
| 4-Bromophenyl phenyl ether | 322.33 | 330 | " | 333.33 | | 96.7 | 35-129 | | | Q-2, MRL-3, J |
| 4-Chloro-3-methylphenol | 273.03 | 330 | " | 333.33 | | 81.9 | 43-122 | | | Q-2, MRL-3, J |
| 4-Chloroaniline | 135.57 | 330 | " | 333.33 | | 40.7 | 10-116 | | | Q-2, MRL-3, J |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Site Environmental Monitoring (SYOA) for White Cigarettes
 US4EoA, ReVisg 9, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|--------|-----------------|-----------|---------------------------------------|---------------|------|-------------|-----|-----------|------------------|
| BHP6 17030fj 4E nj 9j A Msvl/lev | | | | | | | | | | |
| MRx Yerl/PHHs g (17030fj 4o S1) | | | | Prepared: 08/29/17 Analyzed: 09/05/17 | | | | | | |
| 4-Chlorophenyl phenyl ether | 276.37 | 330 | ug/kg dry | 333.33 | | 82.9 | 35-129 | | | Q-2, MRL-3, J |
| 4-Nitroaniline | 297.53 | 330 | " | 333.33 | | 89.3 | 36-155 | | | Q-2, MRL-3, J |
| 4-Nitrophenol | 274.00 | 330 | " | 333.33 | | 82.2 | 38-137 | | | Q-2, MRL-3, J |
| Acenaphthene | 60.633 | 66 | " | 66.667 | | 90.9 | 40-122 | | | Q-2, MRL-3, J |
| Acenaphthylene | 64.767 | 66 | " | 66.667 | | 97.2 | 39-120 | | | Q-2, MRL-3, J |
| Acetophenone | 287.77 | 330 | " | 333.33 | | 86.3 | 29-116 | | | Q-2, MRL-3, J |
| Anthracene | 64.967 | 66 | " | 66.667 | | 97.4 | 41-122 | | | Q-2, MRL-3, J |
| Atrazine | 281.43 | 330 | " | 333.33 | | 84.4 | 10-143 | | | Q-2, MRL-3, J |
| Benzaldehyde | 199.50 | 330 | " | 333.33 | | 59.8 | 21-145 | | | Q-2, MRL-3, J |
| Benzo(a)anthracene | 62.533 | 66 | " | 66.667 | | 93.8 | 45-125 | | | Q-2, MRL-3, J |
| Benzo(a)pyrene | 61.633 | 66 | " | 66.667 | | 92.4 | 40-133 | | | Q-2, MRL-3, J |
| Benzo(b)fluoranthene | 64.000 | 66 | " | 66.667 | | 96.0 | 41-136 | | | Q-2, MRL-3, J |
| Benzo(g,h,i)perylene | 61.233 | 66 | " | 66.667 | | 91.8 | 25-134 | | | Q-2, MRL-3, J |
| Benzo(k)fluoranthene | 64.333 | 66 | " | 66.667 | | 96.5 | 37-135 | | | Q-2, MRL-3, J |
| Benzyl butyl phthalate | 354.73 | 330 | " | 333.33 | | 106 | 36-132 | | | MRL-3 |
| Bis(2-chloro-1-methylethyl) ether | 275.93 | 330 | " | 333.33 | | 82.8 | 20-125 | | | Q-2, MRL-3, J |
| Bis(2-chloroethoxy)methane | 306.33 | 330 | " | 333.33 | | 91.9 | 31-122 | | | Q-2, MRL-3, J |
| bis(2-Chloroethyl) Ether | 274.57 | 330 | " | 333.33 | | 82.4 | 23-120 | | | Q-2, MRL-3, J |
| Bis(2-ethylhexyl) phthalate | 364.93 | 330 | " | 333.33 | | 109 | 35-129 | | | MRL-3 |
| Caprolactam | 322.97 | 330 | " | 333.33 | | 96.9 | 46-121 | | | Q-2, MRL-3, J |
| Carbazole | 74.900 | 66 | " | 66.667 | | 112 | 42-132 | | | MRL-3 |
| Chrysene | 63.767 | 66 | " | 66.667 | | 95.6 | 40-126 | | | Q-2, MRL-3, J |
| Dibenz(a,h)anthracene | 54.500 | 66 | " | 66.667 | | 81.7 | 26-137 | | | Q-2, MRL-3, J |
| Dibenzofuran | 67.133 | 66 | " | 66.667 | | 101 | 37-120 | | | MRL-3 |
| Diethyl phthalate | 317.53 | 330 | " | 333.33 | | 95.3 | 37-119 | | | Q-2, MRL-3, J |
| Dimethyl phthalate | 306.53 | 330 | " | 333.33 | | 92.0 | 35-117 | | | Q-2, MRL-3, J |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 17-0516
Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Site Assessment (SYOA) for the CERAW
US EOA, Revision 9, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

BHP6 17030fj 4E nj 9j A Msvl/lev

MRx Yeri/PHS g (17030fj 4S1)

Prepared: 08/29/17 Analyzed: 09/05/17

| | | | | | | | | | | |
|--------------------------------------|--------|-----|-----------|--------|--|------|--------|--|--|------------------|
| Di-n-butylphthalate | 402.43 | 330 | ug/kg dry | 333.33 | | 121 | 34-121 | | | MRL-3 |
| Di-n-octylphthalate | 389.63 | 330 | " | 333.33 | | 117 | 28-147 | | | MRL-3 |
| Fluoranthene | 66.667 | 66 | " | 66.667 | | 100 | 44-125 | | | MRL-3 |
| Fluorene | 62.667 | 66 | " | 66.667 | | 94.0 | 42-128 | | | Q-2, MRL-3, J |
| Hexachlorobenzene (HCB) | 333.23 | 330 | " | 333.33 | | 100 | 16-111 | | | MRL-3 |
| Hexachlorocyclopentadiene (HCCP) | 268.10 | 330 | " | 333.33 | | 80.4 | 10-119 | | | Q-2, MRL-3, J |
| Hexachloroethane | 266.63 | 330 | " | 333.33 | | 80.0 | 30-106 | | | Q-2, MRL-3, J |
| Indeno (1,2,3-cd) pyrene | 59.300 | 66 | " | 66.667 | | 88.9 | 28-136 | | | Q-2, MRL-3, J |
| Isophorone | 290.37 | 330 | " | 333.33 | | 87.1 | 35-120 | | | Q-2, MRL-3, J |
| Naphthalene | 62.367 | 66 | " | 66.667 | | 93.6 | 38-109 | | | Q-2, MRL-3, J |
| Nitrobenzene | 284.77 | 330 | " | 333.33 | | 85.4 | 32-122 | | | Q-2, MRL-3, J |
| n-Nitroso di-n-Propylamine | 293.10 | 330 | " | 333.33 | | 87.9 | 30-118 | | | Q-2, MRL-3, J |
| n-Nitrosodiphenylamine/Diphenylamine | 314.93 | 330 | " | 333.33 | | 94.5 | 39-124 | | | Q-2, MRL-3, J |
| Pentachlorophenol | 251.77 | 330 | " | 333.33 | | 75.5 | 30-125 | | | Q-2, MRL-3, J |
| Phenanthrene | 64.467 | 66 | " | 66.667 | | 96.7 | 42-123 | | | Q-2, MRL-3, J |
| Phenol | 278.70 | 330 | " | 333.33 | | 83.6 | 36-114 | | | Q-2, MRL-3, J |
| Pyrene | 65.733 | 66 | " | 66.667 | | 98.6 | 38-139 | | | Q-2, MRL-3, J |

BHP6 170f01j 4E nj 9j A Msvl/lev

BHP6 (170f01j 4Bx K1)

Prepared: 09/07/17 Analyzed: 09/14/17

EPA 8270D

| | | | | | | | | | | |
|----------------------------|---|-----|-----------|--|--|--|--|--|--|---|
| (3-and/or 4-)Methylphenol | U | 330 | ug/kg dry | | | | | | | U |
| 2,3,4,6-Tetrachlorophenol | U | 330 | " | | | | | | | U |
| 2,4,5-Trichlorophenol | U | 330 | " | | | | | | | U |
| 2,4,6-Trichlorophenol | U | 330 | " | | | | | | | U |
| 2,4-Dichlorophenol | U | 330 | " | | | | | | | U |
| 2,4-Dimethylphenol | U | 330 | " | | | | | | | U |
| 2,4-Dinitrophenol | U | 660 | " | | | | | | | U |
| 2-Chlorophenol | U | 330 | " | | | | | | | U |
| 2-Methyl-4,6-dinitrophenol | U | 330 | " | | | | | | | U |
| 2-Methylphenol | U | 330 | " | | | | | | | U |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Review (SYOA) of White Closures
 US EPA, Region 9, SED

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

BHP6 170f01j 4E nj 9j A Msvl/lev

BHP6 (170f01j 4Bx K1)

Prepared: 09/07/17 Analyzed: 09/14/17

| | | | | | | | | | | |
|-------------------------|---|-----|-----------|--|--|--|--|--|--|---|
| 2-Nitrophenol | U | 330 | ug/kg dry | | | | | | | U |
| 4-Chloro-3-methylphenol | U | 330 | " | | | | | | | U |
| 4-Nitrophenol | U | 330 | " | | | | | | | U |
| Pentachlorophenol | U | 330 | " | | | | | | | U |
| Phenol | U | 330 | " | | | | | | | U |

x CS (170f01j 4BS1)

Prepared: 09/07/17 Analyzed: 09/14/17

EPA 8270D

| | | | | | | | | |
|----------------------------|--------|-----|-----------|--------|------|--------|--|--|
| (3-and/or 4-)Methylphenol | 1576.8 | 330 | ug/kg dry | 2000.0 | 78.8 | 56-94 | | |
| 2,3,4,6-Tetrachlorophenol | 1799.1 | 330 | " | 2000.0 | 90.0 | 42-128 | | |
| 2,4,5-Trichlorophenol | 1793.4 | 330 | " | 2000.0 | 89.7 | 66-105 | | |
| 2,4,6-Trichlorophenol | 1663.2 | 330 | " | 2000.0 | 83.2 | 63-98 | | |
| 2,4-Dichlorophenol | 1736.7 | 330 | " | 2000.0 | 86.8 | 62-97 | | |
| 2,4-Dimethylphenol | 1187.8 | 330 | " | 2000.0 | 59.4 | 24-87 | | |
| 2,4-Dinitrophenol | 2655.6 | 660 | " | 4000.0 | 66.4 | 17-71 | | |
| 2-Chlorophenol | 1553.1 | 330 | " | 2000.0 | 77.7 | 56-90 | | |
| 2-Methyl-4,6-dinitrophenol | 1664.3 | 330 | " | 2000.0 | 83.2 | 51-99 | | |
| 2-Methylphenol | 1526.3 | 330 | " | 2000.0 | 76.3 | 53-92 | | |
| 2-Nitrophenol | 1643.7 | 330 | " | 2000.0 | 82.2 | 60-92 | | |
| 4-Chloro-3-methylphenol | 1706.5 | 330 | " | 2000.0 | 85.3 | 63-102 | | |
| 4-Nitrophenol | 1781.0 | 330 | " | 2000.0 | 89.1 | 58-117 | | |
| Pentachlorophenol | 1744.6 | 330 | " | 2000.0 | 87.2 | 50-105 | | |
| Phenol | 1502.4 | 330 | " | 2000.0 | 75.1 | 56-94 | | |

x CS Dwp (170f01j 4BSD1)

Prepared: 09/07/17 Analyzed: 09/14/17

EPA 8270D

| | | | | | | | | |
|----------------------------|--------|-----|-----------|--------|------|--------|-------|----|
| (3-and/or 4-)Methylphenol | 1548.9 | 330 | ug/kg dry | 2000.0 | 77.4 | 56-94 | 1.79 | 10 |
| 2,3,4,6-Tetrachlorophenol | 1755.3 | 330 | " | 2000.0 | 87.8 | 42-128 | 2.46 | 10 |
| 2,4,5-Trichlorophenol | 1741.7 | 330 | " | 2000.0 | 87.1 | 66-105 | 2.92 | 10 |
| 2,4,6-Trichlorophenol | 1628.1 | 330 | " | 2000.0 | 81.4 | 63-98 | 2.13 | 15 |
| 2,4-Dichlorophenol | 1708.4 | 330 | " | 2000.0 | 85.4 | 62-97 | 1.64 | 10 |
| 2,4-Dimethylphenol | 1199.6 | 330 | " | 2000.0 | 60.0 | 24-87 | 0.986 | 12 |
| 2,4-Dinitrophenol | 2472.2 | 660 | " | 4000.0 | 61.8 | 17-71 | 7.15 | 89 |
| 2-Chlorophenol | 1525.6 | 330 | " | 2000.0 | 76.3 | 56-90 | 1.79 | 11 |
| 2-Methyl-4,6-dinitrophenol | 1628.6 | 330 | " | 2000.0 | 81.4 | 51-99 | 2.17 | 10 |
| 2-Methylphenol | 1492.5 | 330 | " | 2000.0 | 74.6 | 53-92 | 2.24 | 10 |
| 2-Nitrophenol | 1609.4 | 330 | " | 2000.0 | 80.5 | 60-92 | 2.11 | 10 |
| 4-Chloro-3-methylphenol | 1672.4 | 330 | " | 2000.0 | 83.6 | 63-102 | 2.02 | 12 |
| 4-Nitrophenol | 1712.4 | 330 | " | 2000.0 | 85.6 | 58-117 | 3.93 | 14 |



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 D.A.R.T. Id: 17-0516
 Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

Semi-Annual Site Environmental Monitoring (SYOA) for White Csgtrs a
 US4EoA, ReMsg 9, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

BHP6 170f01j 4E nj 9j A Msvl/lev

x CS Dwp (170f01j 4BSD1)

Prepared: 09/07/17 Analyzed: 09/14/17

| | | | | | | | | | | |
|-------------------|--------|-----|-----------|--------|--|------|--------|-------|----|--|
| Pentachlorophenol | 1676.3 | 330 | ug/kg dry | 2000.0 | | 83.8 | 50-105 | 4.00 | 10 | |
| Phenol | 1491.3 | 330 | " | 2000.0 | | 74.6 | 56-94 | 0.739 | 10 | |

DwpdPHe (170f01j 4Uo1)

SswP: E17n90n41RE1

Prepared: 09/07/17 Analyzed: 09/14/17

EPA 8270D

| | | | | | | | | | | |
|----------------------------|---|------|-----------|--|---|--|--|--|-----|-----------------|
| (3-and/or 4-)Methylphenol | U | 1400 | ug/kg dry | | U | | | | 200 | H-1, J, QS-4, U |
| 2,3,4,6-Tetrachlorophenol | U | 1400 | " | | U | | | | 200 | QS-4, H-1, J, U |
| 2,4,5-Trichlorophenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2,4,6-Trichlorophenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2,4-Dichlorophenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2,4-Dimethylphenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2,4-Dinitrophenol | U | 2900 | " | | U | | | | 200 | J, H-1, QS-4, U |
| 2-Chlorophenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2-Methyl-4,6-dinitrophenol | U | 1400 | " | | U | | | | 200 | J, QS-4, H-1, U |
| 2-Methylphenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 2-Nitrophenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |
| 4-Chloro-3-methylphenol | U | 1400 | " | | U | | | | 200 | J, H-1, QS-4, U |
| 4-Nitrophenol | U | 1400 | " | | U | | | | 200 | J, QS-4, H-1, U |
| Pentachlorophenol | U | 1400 | " | | U | | | | 200 | J, QS-4, H-1, U |
| Phenol | U | 1400 | " | | U | | | | 200 | H-1, J, QS-4, U |

MRx Yerl/PHIs g (170f01j 4o S1)

Prepared: 09/07/17 Analyzed: 09/14/17

EPA 8270D

| | | | | | | | | | | |
|---------------------------|--------|-----|-----------|--------|--|------|--------|--|--|---------------|
| (3-and/or 4-)Methylphenol | 251.70 | 330 | ug/kg dry | 333.33 | | 75.5 | 36-114 | | | MRL-3, Q-2, J |
| 2,3,4,6-Tetrachlorophenol | 260.37 | 330 | " | 333.33 | | 78.1 | 22-148 | | | MRL-3, Q-2, J |
| 2,4,5-Trichlorophenol | 271.87 | 330 | " | 333.33 | | 81.6 | 46-125 | | | MRL-3, Q-2, J |
| 2,4,6-Trichlorophenol | 252.07 | 330 | " | 333.33 | | 75.6 | 43-118 | | | MRL-3, Q-2, J |



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Semi-Annual Site Environmental Monitoring (SYOAE) for the CERCLA
 Superfund Site, Revising 9, SESD

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

BHP6 170f01j 4E nj 9j A Msvl/lev

MRx Yerl/PHS g (170f01j 4S1)

Prepared: 09/07/17 Analyzed: 09/14/17

| | | | | | | | | | | |
|----------------------------|--------|-----|-----------|--------|--|------|--------|--|--|---------------|
| 2,4-Dichlorophenol | 288.93 | 330 | ug/kg dry | 333.33 | | 86.7 | 42-117 | | | MRL-3, Q-2, J |
| 2,4-Dimethylphenol | 107.43 | 330 | " | 333.33 | | 32.2 | 10-107 | | | MRL-3, Q-2, J |
| 2,4-Dinitrophenol | 169.53 | 660 | " | 666.67 | | 25.4 | 10-91 | | | MRL-3, Q-2, J |
| 2-Chlorophenol | 268.97 | 330 | " | 333.33 | | 80.7 | 36-110 | | | MRL-3, Q-2, J |
| 2-Methyl-4,6-dinitrophenol | 165.53 | 330 | " | 333.33 | | 49.7 | 31-119 | | | MRL-3, J |
| 2-Methylphenol | 245.43 | 330 | " | 333.33 | | 73.6 | 33-112 | | | Q-2, MRL-3, J |
| 2-Nitrophenol | 272.77 | 330 | " | 333.33 | | 81.8 | 40-112 | | | Q-2, MRL-3, J |
| 4-Chloro-3-methylphenol | 277.33 | 330 | " | 333.33 | | 83.2 | 43-122 | | | Q-2, MRL-3, J |
| 4-Nitrophenol | 258.03 | 330 | " | 333.33 | | 77.4 | 38-137 | | | Q-2, MRL-3, J |
| Pentachlorophenol | 210.43 | 330 | " | 333.33 | | 63.1 | 30-125 | | | Q-2, MRL-3, J |
| Phenol | 273.47 | 330 | " | 333.33 | | 82.0 | 36-114 | | | Q-2, MRL-3, J |



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Project: 17-0516, Cheraw Riverside Dump - Reported by Diana Burdette

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| | |
|-------|---|
| U | The analyte was not detected at or above the reporting limit. |
| H-1 | Recommended holding time exceeded |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| MRL-3 | MRL verification for Soil matrix |
| Q-2 | Result greater than MDL but less than MRL. |
| QL-2 | Laboratory Control Spike Recovery greater than method control limits |
| QM-2 | Matrix Spike Recovery greater than method control limits |
| QM-6 | Matrix Spike Recovery less than 10% |
| QS-4 | Surrogate recovery less than 10% |

Trip Report – Cheraw Riverside Dump

August 23, 2017

Jason Williams

The site is located at the end of E Church St along the Pee Dee River. The site is currently Riverside Park. The park consists of consists of a picnic shelter, walking trails, greenspace, fishing platform, boat ramp, and parking area. Several boats were unloaded for fishing while author was at the site. Several visitors also were fishing along the bank and at the fishing pier. Small pieces of refuse were noted at several locations along the green space area. Material consisted of bits of glass, metal, plastic, rubber, porcelain and fabric. Some fabric material was also noted sticking out of the bank along the river. A few dozen residents visited the park during the 4 hours the author was on site. Visit times ranged from a few minutes to a couple of hours (Fisherman).